

DECORATIVE
COMPOSITION

MAYEUX.



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Why ask for the moon
When we have the stars?

To Dagmar with
Love from Violet



A MANUAL OF
DECORATIVE COMPOSITION

A MANUAL OF
DECORATIVE COMPOSITION

*FOR DESIGNERS, DECORATORS, ARCHITECTS,
AND INDUSTRIAL ARTISTS*

BY

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TRANSLATED BY J. GONINO

AND

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PREFACE.

THE important questions raised by a subject so vast as that implied under the title of Decorative Composition, would require a volume of far greater bulk as well as a considerable number of coloured plates.

Our scope is more modest and purely practical ; we have only aimed at preparing a manual which should serve as a guide to industrial artists, designers, sculptors, and decorators, including young architects, in which they will find, summed up as clearly as possible, knowledge which only comes of experience, and which would have cost them long and tedious research to obtain. Hence the charm of style which attaches to a work æsthetically and exhaustively treated must not be looked for here, and, for obvious reasons, neither should highly finished drawings.

On the other hand, we have been careful to make the book as complete as the narrow limits imposed upon us would permit, and have spared neither time nor trouble in seeking information from reliable sources and

acknowledged authorities. We owe a debt of gratitude to many of our predecessors for the help afforded us in their books. In conclusion we ask for the indulgence of the reader ; for although our labour has been one of love, we are conscious of our shortcomings, of errors of omission and commission difficult to avoid in a volume which, whilst aiming at a completeness of its own, is but a stepping-stone to a summary of a larger work.

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DECORATIVE COMPOSITION



INTRODUCTION.

I.—DECORATIVE ART COMPOSITION.

Decorative, or as it is sometimes called, *ornamental art*, is too often considered as occupying an inferior position in the hierarchy of the Fine Arts; as having nothing in common with them, except in outward appearance. This is, however, a mistake which it is necessary to correct, since the word *decorative* is applicable to all the arts, when they are used to satisfy certain conditions of usefulness with reference to surroundings or position.

There is little difficulty in classifying arts applied to industry or industrial arts,* such as working in bronze, wood, iron, ceramics, enamels, mosaic, tapestry, glass, etc., for decorative or architectural purposes, the latter being readily recognised as one of its finest and noblest

* The expression *industrial arts* has been criticised on the plea that art is debased when applied to industrial ends, and has been replaced by *art industries*, which is in no way more logical. We shall not enter into a mere question of words; what is important is, that, whichever expression is used, it be understood.

expressions; but confusion is apt to exist when we approach painting and sculpture, no matter how decorative their chief object may be. Do not the frescoes which cover our walls, the pier-glasses, and doors, as well as the bas-reliefs, medallions, busts, and statues, associated with a fine architectural building, and forming part of it, all belong to decorative art? This, their essential characteristic, is not met with in works of art conceived without reference to their surroundings, and consequently susceptible of being displaced at will.

There are works, however, which have been, by common consent, called *decorative*, although they were not executed with a view to any definite destination; but in this case they are possessed of special qualities, and, if necessary, they may be introduced in general decoration; whilst we see works conceived in view of a particular site wanting in such qualities, and thus unfitted for the part assigned to them. The main object, therefore, in *decorative composition* is the study of those qualities whereby balance between the various parts of a work, whether of *form* or *decoration*, is secured, and a whole, attractive in itself and in harmony with its surroundings, is obtained.

But before entering into these complex questions we wish to note one or two points: First, with regard to industrial products, we would observe, although they have no bearing upon art, that the practical use for which they are intended should be well kept in view. Are we not right, for instance, to demand that the mouth of a vessel shall allow of water being poured easily, that the handles shall be con-

venient; and the various openings of a piece of furniture disposed with regard to their practical use? Exceptions will naturally be made of objects fashioned solely to please the eye, with no reference to domestic uses, such as decorative plates and ornamental metal-work. Even practical usefulness, to be complete, should be accompanied by a certain degree of beauty, so as to give

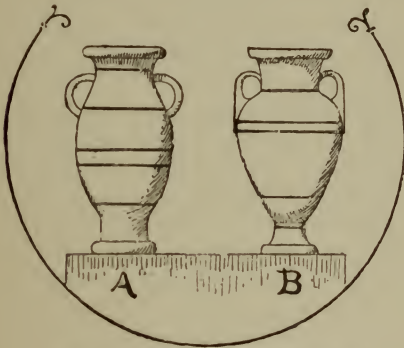


Fig. 1.—Artistic and Inartistic Work.

to its embodiment something more than mere mechanical value. There is, unfortunately, a prevalent idea abroad that the beautiful is attained by complicated forms overloaded with elaborate ornamentation. That this is an error will be made apparent to the most inexperienced eye by the following very simple example. Fig. 1 represents two vessels of the same height, made

of the same clay, and we may assume that the same care was bestowed upon the execution of each. They are each furnished with two handles, and decorated with an equal number of brown stripes painted on the outer surface; A is the work of a simple potter, without artistic education, whilst B is the work of one of those Greek workmen, whose refined taste is too well known to need comment. There is no one but will feel the superiority of vase B over its companion A; the purity of outline, the finish of the handles, the division of the stripes, at once establish a wide difference in the artistic value of the two pieces.

It will be seen from this example that a knowledge of the laws both of *form* and of *decoration* will raise the standard of any work, from the lowest grade of industry to the highest standard of art. *Clearness* is another quality which it is no less important to bear in mind, and which will be dealt with in our chapter on decorative composition. The best guide for the attainment of *clearness* is common sense. In a composition, for instance, it will not be satisfied unless all the component parts, however complicated, can be viewed at a glance, and without effort even at some distance. An undecided method, profuseness of detail, want of truth in the part assigned to the subject of the work, *i.e.* all the defects most opposed to distinctness (and, alas! too frequently seen in current composition), cannot be too severely or too often stigmatized, if it is wished to raise the standard of our art industries from the mere routine which seems to have taken permanent root in our studios.

II.—REPRESENTATION BY MEANS OF DRAWING.

BEFORE we approach the discussion of the laws of decorative composition we will pass in review the various ways of faithfully representing, by transcription, the forms or decorative subjects which imagination has conceived.

To work in relief, is, doubtless, the most satisfactory treatment for massive objects; but not every artist can model, and if he could, there are scores of compositions, even on a reduced scale, which it would be difficult to express by such a method. It is necessary, therefore, for the student to master every appearance of form, and to train himself to allow for *height*, *breadth*, and *thickness*; not to be satisfied with height and breadth only, which any drawing will express, but to note especially thickness, the fictitious representation of which is not easily detected. Sculptors accustomed to clay or wax modelling always bear in mind the third dimension; thus their drawings, albeit frequently unskilful, are possessed of features peculiarly valuable to artists. This important quality is not always traceable in the work of furniture, bronze, and ceramic designers, and their carelessness often causes producers, in their perplexity, to interpret incomplete drawings after their own light, or to resort to alterations and expedients which debase and but faintly recall the original composition.

Objects are represented by *projection* or *perspective*. Projection consists in determining on a plane surface the perpendiculars let down on each side of the object to be represented. This conventional view is the only one

which faithfully reproduces the natural or reduced size of forms, whilst preserving their proportions and positions. The example we give is an inlaid casket with drawers

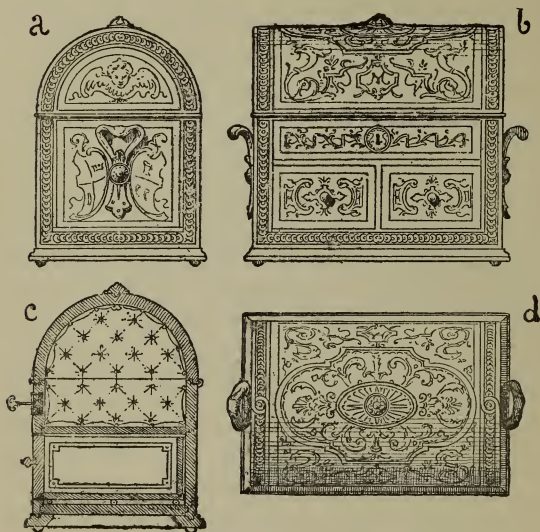


Fig. 2.—Coffer viewed in Projection.

and handles, seen under various aspects by means of projection, Fig. 2.

When projection is straight or vertical, and parallel to the main side, it is called *side elevation*, A. When the side is shown, it is called *lateral* or *flank* B; if

the object is seen *obliquely*, it is an *oblique projection*; if the interior of the object is to be shown in the drawing, we are supposed to indicate this by one or several vertical sections or projections, c. These *cuts* or sections are *longitudinal* when they run from top to bottom, or *transverse* when from side to side. If it is the top which is shown in projection, allowing a view of the interior, with

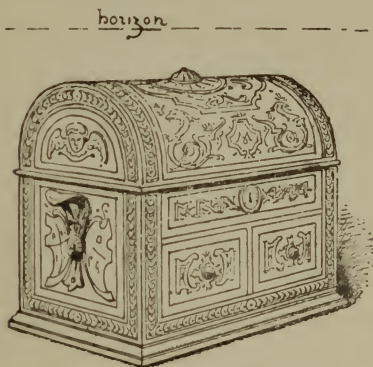


Fig. 3.—Coffer viewed in Perspective.

or without horizontal cut, such a projection is termed *plan* or *ground plan*.

Perspective is the science by which objects are represented according to their appearance, not according to their actual shape and relative position. It is a natural view, which, if it does not give us the exact shape, will enable us to form a better and more general idea of

objects as they appear to us from a certain standpoint, seen in Fig. 3. The *one stroke* drawing, which found great favour in the first half of this century, is a very defective process of representation ; for a single outline, however firm and broad is inadequate to indicate bodies in relief. Forms with curved plans, rounded surfaces, and octagonals, when shown in projection, require additional modelling, if it is wished to avoid disagreeable surprises in the results.

Forms with square or rectangular plans, associated with curved plans, necessitate an *oblique* or *flank perspective*, because of the different impression received according as a straight or oblique view of the object is obtained, Fig. 4.*

On the other hand, forms with triangular plan, as tripods, for instance, when seen on a certain side, show a kind of *inclination*, which the student must distrust and allow for, since the regular projections, both at the angle or front, have no trace of such inclination. Another bad habit of frequent occurrence with designers and architects, is to sketch fragments only of their drawings to save time and trouble ; whether to show two different surfaces united on the same axis, or to avoid the wearisome rendering of a long symmetrical repetition. Let the student remember that time spent in making a complete drawing is time well spent ; for thus an accurate and general idea of the object is obtained. No one, not

* Cabinet-makers, architects, and workers in bronze are fully aware of the effect of execution of similar forms as compared with their designs.

even the most skilled artist, is able to inform himself of the whole from a fraction only. Hence the whole composition, if but a sketch, should first be carefully outlined, and half roses, mutilated pieces of furniture, bits of fron-



Fig. 4.—Object viewed in Oblique and Flank Perspective.

tals and ceilings, peremptorily banished from the sketch-book and album. It is true, we see in numbers of ancient collections sets of mutilated drawings, where regard for economy and want of space excuse, to a certain extent, such a mode of procedure, albeit at the cost of part of

the interest and just apprehension of the objects themselves.

What has been said in respect to careful drawing equally applies to compositions dependent on colour for their general effect, where it is essential to notify, if not complete colouring, at least the relative *value* of the tints. When the student is thus possessed of the requisite materials for a definite composition, which close observation and patient training will have obtained for him, he can confidently proceed to work without fear of failure.



Fig. 5.—A delicate and clearly-defined Decorative Design.

PART I. — THEORY.

CHAPTER I.

FORM.

IN the subject under consideration, form is the ensemble of appearing surfaces which define objects of art. These are composed of forms used as grounds or centres, to which painted or relief decoration is applied. Decoration and form are often conceived simultaneously, but we will take up each in turn, so as to establish more clearly the principles of composition.

It may be laid down as an axiom in decorative art, that form must be perfect in itself and should not resort to applied decoration, in order to conceal defects and incompleteness. The disregard of this principle explains the reserve so long entertained respecting industrial arts, where a tasteful decoration is often applied to forms ill-constructed or insufficiently studied.

Theoretically, we will distinguish forms of *three apparent dimensions* (height, breadth, and thickness), from those of *two dimensions* (height and breadth), in which thickness is not particularly concerned. Starting with forms of three dimensions applied to objects of art, such as vases turned on the wheel with circular plans and

their developments,* we shall pass through every variety of furniture down to architectural subjects, ending with forms of two dimensions, represented by decorative panels, screens, frames, borders, plates, fans, and the like.

SECTION I.—SOLIDS.

Good *outline* and good *proportion* are essential conditions in objects of art. *Proportion* regulates the various elements of form, and form itself.

The first rule to be observed in order to get good pro-

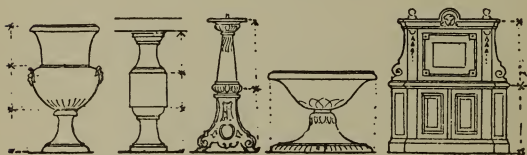


Fig. 6.—Objects possessing Dominant Shape.

portion, is to provide that one of the elements of form be distinctly *dominant*, so that the eye, instead of being perplexed, as to the relative proportion assigned to the various elements of the work, will instinctively rest on the dominant element; thus much valuable time is saved, resulting in a simpler and more distinct impression.† It

* The vase, because of its typical shape and consequent importance in decorative art, will frequently occur as an illustration.

† Egyptian, Greek, Roman and Mediæval architecture, and in a less degree, Italian Renaissance, present numerous examples of this principle, too often neglected by French artists of the same period.

is needless to say that Fig. 6 shows a set of objects in which a particular shape is dominant. Consequently, when projections, shapes, and outlines, are dissimilar, *equalities of height* should not be given to the various



Fig. 7. ^b—Shapes of False Equality.

parts of form, as in Fig. 7, where all the objects are defective, because apparent equality is assigned to elements which do not demand it. For the same reason *equality of projection* should not be associated with dis-

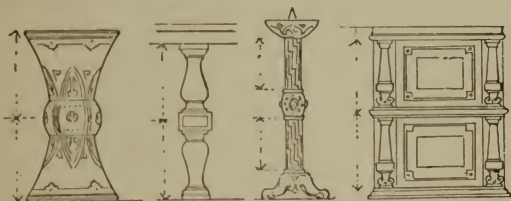


Fig. 8.—Shapes of Equal Projection.

similar outlines. But if the artist had intended to portray *symmetrical repetition* by means of portions of form identical in outline, then, whatever their position, rigorous equality of height or projection should be allowed to each of the repeated elements, Fig. 8. In other words, dif-

ference or parity of outlines should accompany parity of heights and projections, and the choice once made should afterwards be unhesitatingly and forcibly affirmed. These principles are equally applicable to secondary parts such

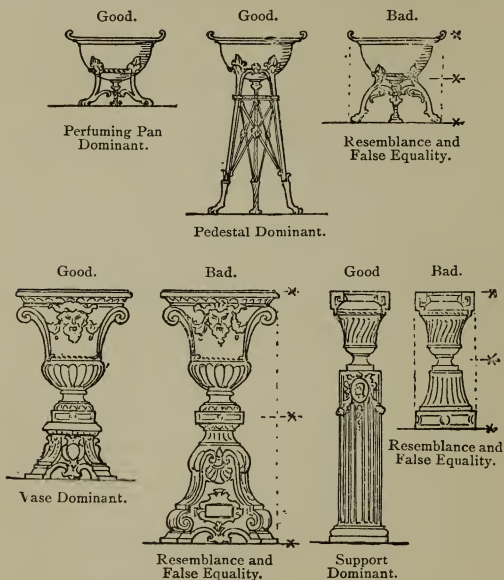


Fig. 9.—*Examples of Proportion.*

as supports, pedestals, small columns, and the like, which should follow the general outline and be proportioned to the objects of art with which they are to be definitively associated, Fig. 9. *Outline* is the obligatory complement

of all proportion; it endows form with its final touch of grace or characteristic impress, whilst its importance in architecture and industrial arts is too well known to require more than simple mention.

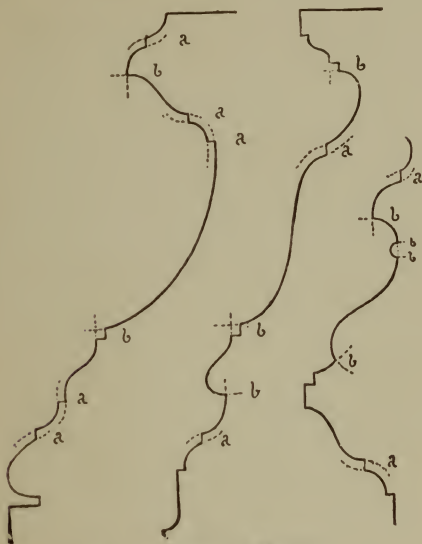


Fig. 10.—*Outlines of Mouldings.*

a. Continuous Joinings.

b. Contrasted Joinings.

There are two different kinds of outlines: *general outline*, also called *shape*, and detailed outlines or *mouldings*. In principle, each curve of an outline joins on to the

preceding, and the following curve, either by following

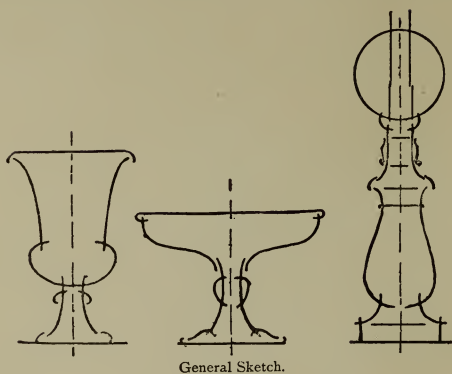


Fig. II.—Objects in Outline and in Detail.

the same direction, as the *continuous joint* (a), or break.

ing and crossing it in a new direction, as the *contrasted joint (b)*, Fig. 10. In continuous joints each curve must preserve unity of direction and inflection, in respect to the adjacent curve, without attention to intervening straight plans, such as slips and listels; whilst in contrasted



Fig. 12.—*Angular and Disagreeable Shapes.*

joints care should be exercised to make each crossing as *regular* as possible. Thus disconnected and broken outlines will be avoided.

General outline must be constructed exactly as the



Fig. 13.—*Angular and Disagreeable Shapes.*

drawing of a figure, where preliminary lines are first put in before blocking out the features, Fig. 11. The outline should be firm and characteristic, without hardness, rigidity, or unduly straight lines, resulting in angular and disagreeable shapes, Figs. 12 and 13; nor should soft,

weak outlines, chiefly composed of curves devoid of rectilinear joints, be cultivated, Fig. 14. These laws of profile or outline govern in an equal degree all accessories and definitive parts of an object of art, such as



Fig. 14.—*Weak Outlines.*

handles, supports, terminals, and mouldings, in which search after distinct form is essential, Fig. 15.

Mouldings, applied on form, have an endless variety of outlines, differentiated by names which have become



Fig. 15.—*Proper Outline applied to Details.*

classical. They are divided into two classes: mouldings having *open profiles*, i.e. projected and seen in their complete development, and mouldings with *receding profiles* (Fig. 16), exhibiting parts unseen in projection, the effect

of which, null in a drawing, is very apparent in reality,



Fig. 16.—Mouldings.

and must be carefully established to prevent disappointment in the result, Fig. 17.

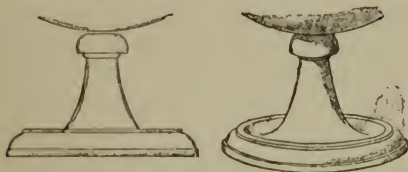


Fig. 17.—Drawing compared with Work viewed in Projection.

But what is the relation to be observed between mould-

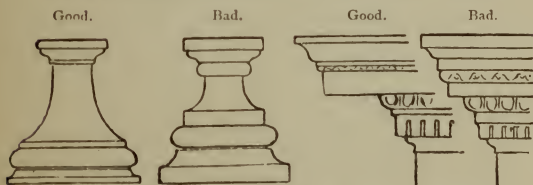


Fig. 18.—Contrast of Artistic and Inartistic Outlines.

ings and form? At the outset, and in accordance with

the rule laid down a little earlier, the student must provide that some forms, whether of height or projection, shall prevail; consequently, *dissimilar* outlines should not be made to look similar, if it is wished to avoid a common

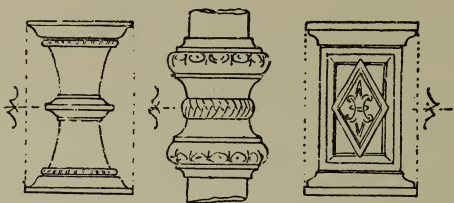


Fig. 19.—*Axial Mouldings.*

and disagreeable aspect, Fig. 18. If, on the contrary, the artist, following an axis, had sought to repeat symmetrically one or several mouldings, each of them should be identical with the corresponding mouldings, Fig. 19.

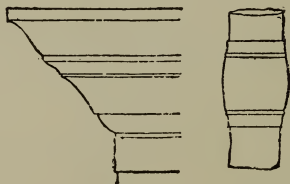


Fig. 20.—*Undecided Outlines.*

What has been said with regard to shape and outline applies equally to settings, borders, frames, and the like, in which mouldings with insufficient relief or undecided outlines must be rejected as ineffective, Fig. 20.

Sharp and acute arcs should likewise be rejected, on account of their angularity and hardness of outline, and

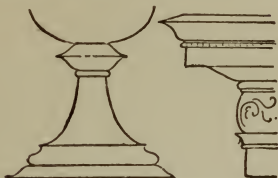


Fig. 21.—Acute Outlines.

the care they necessitate in working and preserving the pieces, Fig. 21; small transition plans, such as fillets

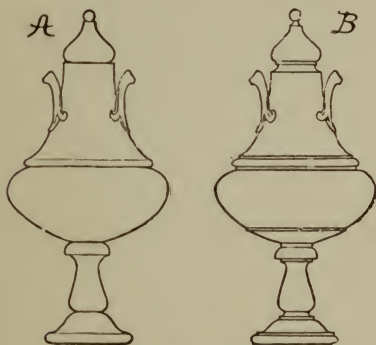


Fig. 22.—Gliding Surfaces Corrected.

and arabesques, will effectually prevent both this, and also the mistake of tangent juxtapositions, which are apt

to create an impression of gliding surfaces, seen in vase A, corrected in vase B, Fig. 22. When simplicity of shape and uniform treatment are desired, a repetition of naked mouldings, occurring at stated intervals, may be resorted to with excellent effect, Fig. 23.

In conclusion, we advise the student to use the compasses as little as possible in tracing the curved portions of outlines, if he wishes to avoid showing up the joints in a very disagreeable way; the hand under the guidance of an accurate eye and feeling will achieve graceful, delicate, or characteristic outlines, never attained by mechanical aids, Fig. 24. Exception may perhaps be

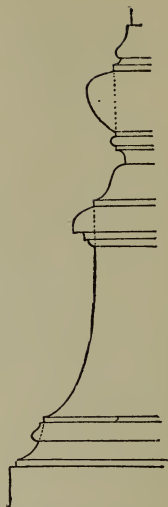


Fig. 23.—Bare Moulding Repeated.



Fig. 24.—Graceful Outlines.

made for certain mouldings, such as beads, tores or gorges

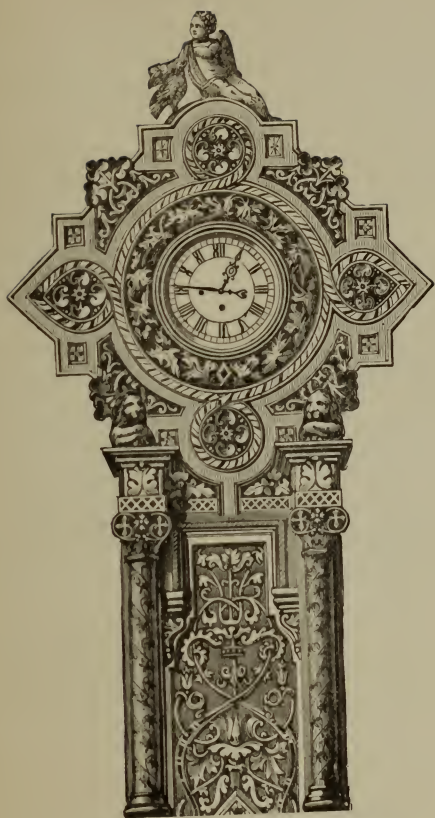


Fig. 25 —Circular and Flowing Outlines.

with circular outlines, which by their disposition require to be joined on to given centres, Fig. 25.

The best models for a thorough study of outlines

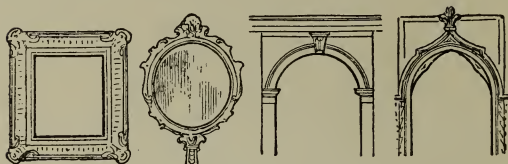


Fig. 26.—*Weak Outlines.*

and mouldings will be found in Greek and Roman architecture, in the Renaissance of all countries, in Oriental, and especially Corinthian, vases, which in

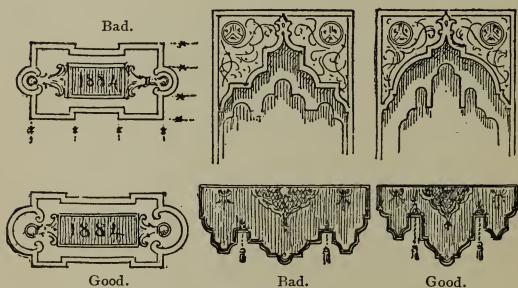


Fig. 27.—*Contrasted Examples.*

grace, simplicity, and perfect shape, have never been surpassed.

SECTION II.—PLANES.

A PLEASING shape is essential in forms not dependent on thickness for their expression. The same laws which govern profile are applicable to shape, which also demands firmness and breadth in all its parts to produce character and effect. Although it may seem superfluous, we remind the student that *squares* should have all their sides of *exactly* the same dimension, and their angles

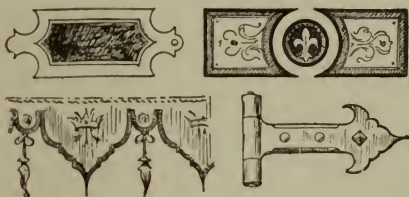


Fig. 28.—Angles too Acute.

right angles; whilst the *lengths* and *breadths* of *rectangles* and *ovals* should be clearly differentiated, and *circles* should not be given more than one *centre*. Yet these very elementary principles are too often neglected by architects and industrial artists, and result in disagreeable, weak outlines, Fig. 26. Partial outlines, such as ancone angles, rounded cusps, festooned borders, oriental arches, scallops, etc., are subject to the same principles. But whilst discarding solids and hollows, some parts should be kept decidedly dominant, Fig. 27.

Here the necessity is once more felt of systematic repetition in symmetrical shapes, ranged on the same axis, whatever their disposition may be, and also of the rejection of false symmetries, *i.e.* of identical shapes repeated, notwithstanding the absence of an axis. Again, unduly receding, sharp or protruding angles must not be cultivated, because to disagreeable, rigid outlines would be added difficulties of workmanship, and exaggerated

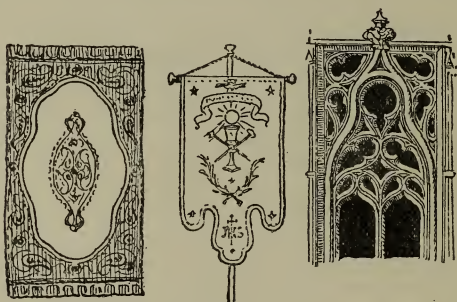


Fig. 29.—Soft and Undulating Contours.

delicacy, denoting not delicacy, but weakness of the worst kind, Fig 28. Undulating, soft shapes, made up of curves, are equally vicious, Fig. 29 ; whilst whittled edges, showing a mere confusion of disjointed outlines, should not be permitted. Examples of this may be observed in scores of time-pieces of Flemish and German Renaissance, notably those of Dieterlingen, Fig. 30. In a word, in shape as in proportion, perfect truthfulness

must be the ruling principle, and once a style has been chosen, be it regular or irregular, it should be persisted in and applied without the slightest hesitation.

Classic, Renaissance, and Arabic art show in their arches, frontels, brackets, escutcheons, tables, couches, and time-pieces the best models for imitation, the shapes of which are marked by great truthfulness and variety.

SECTION III.—STABILITY.

No form, however beautiful, can be perfect which is not

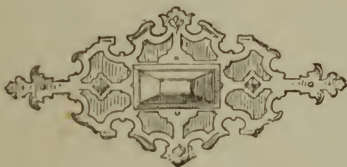


Fig. 30.—Disjointed Outlines.

possessed of that quality which not only secures objects from falling, but gives them also an appearance of stability; hence an object that does not fulfil this condition, and completely reassures the eye, may have had conscientious mechanical skill bestowed upon it, but *artistic* in the strict and only true sense of the word it never can be called. Chairs you are afraid to sit down upon lest they should give way, tables and couches which *look unsafe* for want of strong supports, for all their delicate work, cannot be classed among objects of art.

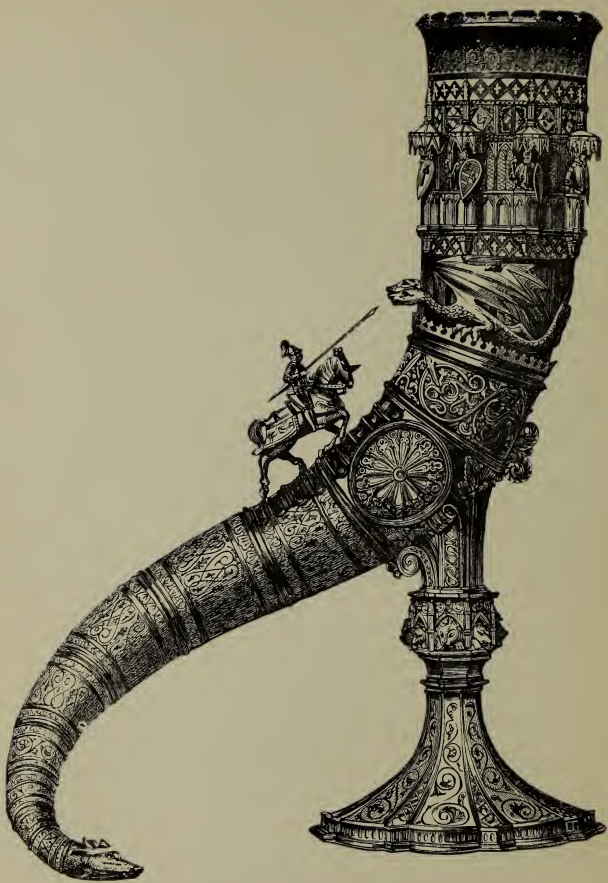


Fig. 31.—Proper Balance.

Irregular forms mounted on narrow bases necessitate still greater care in the distribution of the masses, proportionate with the bases, to give them an air of stability. Such are many works of Caravaggio and Lepautre, those of the sixteenth century generally, and the Rocaille style ; the ewers, coffee and tea-pots of all styles, where handles are made to balance the mouths or spouts, together with



XVIIth Century.



Indo-Persian.

Fig. 32.—Proper Balance.

mediæval pieces, in which a horn is the primary element, Figs. 31 and 32.

Some industrial artists thicken portions of their pieces to steady them ; but these are subtleties not very apparent to the uninitiated, and do not compensate for bad distribution of masses, while they cannot redeem works

so constructed, whatever their finish and technique, from being inferior art.

Plain triangular objects, such as tripods, three-handled vases, three-figured plinths, and the like, demand, as a rule, a relief device on the portions facing the angles or



Fig. 33.—Example of Good Equilibrium.

sides, which, without establishing symmetry in every respect, shall nevertheless bring about some kind of counterpoise.

Irregular pendent forms of two dimensions also require a similar equilibrium; such are those time-pieces of

which the spirited decorations found so much favour in the seventeenth century, Fig. 33.

The equilibrium of suspension, rather than that of station, is necessary for these forms, which may be supposed to hang by an invisible thread from a point above them, this point being in the prolongation of a vertical line drawn through the point of suspension, and dividing the surface into two parts of apparently equal weight. Hence escutcheon A, Fig. 34, will appear better

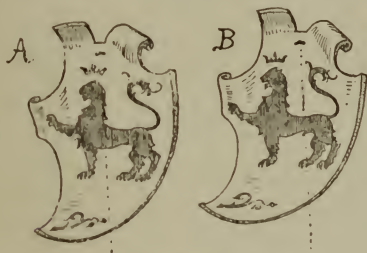


Fig. 34.—*Suspensory Equilibrium.*

ordered than B, albeit the equilibrium of both lions is the same. Essential in objects of domestic use, stability may be dispensed with in representations of the same objects decoratively figured in painting, bas-reliefs, earthenware, tapestry, marquetry or mosaic; thus oriental and Renaissance compositions frequently show *vases* ornamented by foliated masses, with forms and supports so fragile and attenuated, that they are only saved from incongruity by their decorative character, Fig. 35.

It will have been observed, that we have made no

mention of forms and subjects obtained by mathematical or geometric combinations, such as squares, diagonals, equilateral triangles, and the like, extensively used by

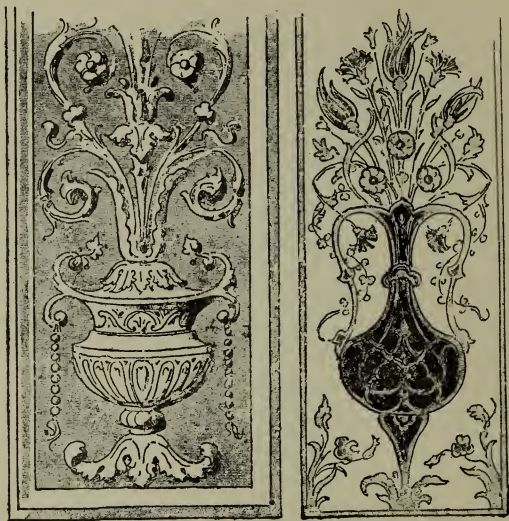


Fig. 35.—Decorative Use of Forms.

Egyptian, Greek, and Mediæval architects in the treatment of their plastic works. We are of opinion that the student will do well to use such methods sparingly, subordinating them to the main subject of the composition.

CHAPTER II.

DECORATION AND SOURCES OF ORNAMENT.

BEFORE we essay to apply decoration on form we will examine decoration *per se*, i.e. the innumerable assemblage of subjects known under the generic term of *ornamentation*, having for its object the embellishment of the object on which it is applied. If then, the end of ornament is to enhance the beauty of form, it is obvious that elaborate and complicated ornamentation which fails to do this must not be encouraged.

THREE METHODS OF DECORATION.

The multitudinous sources from which decoration borrows its inspiration are reducible to three, *nature*, *geometry*, and *manufactured* articles. But as the materials furnished by nature are susceptible of widely dissimilar modes of application, ranging from photography and the perfect imitation of nature, to the most conventional interpretation, we will take them up successively, dividing them into three *methods*, starting with *nature* at one end, and *conventionality* at the other.

SECTION I.—NATURAL DECORATION.

THE FIRST METHOD.

The *first method* consists in a representation, pure and simple, of decorative material found in nature, or as the artist sincerely thinks he sees it. To nature he turns for all the component elements of a picture: such as modelling of forms, local colour, horizons, skies, landscapes, and architectural backgrounds. But to this servile imitation of the original a decorative artist is careful to add *arrangement*, by giving prominence to the chief parts, proportioning the lines of outline and general grouping of the masses (too little attended to by painters and sculptors), whilst the colouring of painted subjects may be softened or sharpened, so as to obtain and affirm truthfulness of aspect with reference to the relative positions of the decoration and the spectator. Judicious choice and subtlety of arrangement, rather than exact imitation are the main features to be sought for in this class of subject, seen in the panel, Louis XIV., Fig. 36. As examples of this first method may be quoted mural and ceiling paintings, Renaissance frescoes from Giotto to modern times,* wherein decorative treatment, by its subject, background, modelling, and subtlety of light and colour, nearly approaches a picture in general effect; together with the bas-relief of artists of the same period who sought reality in perspective grounds, viewed in the bas-reliefs of Bernini, d'Algarade, and Puget's works; whilst

* There are some old paintings, which, by their truthful and sincere treatment, have a right to be classed under the first method.



Fig. 36.—Natural Decoration.

in art industries, stained glass, enamels, mosaics, and



Fig. 37.—Tapestry Decoration.

tapestry, a like representation has been followed resulting in similar effects, Fig. 37.

THE SECOND METHOD.

The *second method* holds a middle course between a faithful reproduction of nature and conventionality. Natural elements are still employed, but they are now introduced amidst conventional surroundings where designs stand out on gold or coloured grounds, and where landscapes and architecture, rendered perspectively, are subordinated to the general effect of the work. To allow for a certain appearance of stability, festooned wreaths and pendent ornaments are introduced, whilst figures, when not flying, rest on conventional supports of the flimsiest kind. But whatever the devices, be they fixed, pendent, or floating in mid air, they must, at all times, preserve their modelling and natural colour, exemplified in the Regence panel, Fig. 38, and also in Fig. 39.

Old Roman modelled-paintings, many Renaissance works, and scores of others executed in our own times belong to the second method; together with panels, earthenwares, enamels, stained glass, tapestries, and the



Fig. 38.—Regence Panel.



Fig 39.—Conventional Treatment of Nature.

like, wherein modelled and naturally tinted subjects stand out on conventional grounds, Fig. 40.

In this class may also be ranged sculptured compositions, the background of which does not aim at picturesque effects; such are many bas-reliefs of Ghiberti, Donatello, and the sculptors of the Italian Renaissance generally.

THE THIRD METHOD.

The *third method* is marked by the typical character of the subjects. In it details and modelling are modified to suit the decoration, or, if requisite, so attenuated as completely to disappear, except the outline, which is kept light or sufficiently tinted for the purposes of expression; when the subjects seem fixed or nailed on the background, with or without apparent relief, and local colour is brightly tinted, modified or shaded in considerable proportions. It should be noted, that in works where all the elements are purely conventional, a high standard of excellence and by far the most satisfactory results, are obtained.

Among the endless examples of the third method may be noted the early paintings and sculptured decorations of Egypt, Assyria, Greece, and Etruria; the Byzantine mosaics, mediæval stained-glass, and other paintings down to the fifteenth century, together with the decorative arts of other civilised Eastern nations. With regard to the latter, we may assuredly ascribe to ignorance, rather than to intelligent choice, their peculiarly conven-



Fig. 40.—Natural Objects on Conventional Ground.



Fig. 41.—Mixed Composition.

tional interpretation ; but whether through inability to imitate nature, or the natural inclinations of the artists, the outcome in most of their compositions (painted tiles, bricks, and mosaics) is a result eminently satisfactory from a decorative point of view, which a servile rendering of nature would have failed to obtain. We conclude



Fig. 42.—Mixed Composition.

with an example of *mixed* composition, Louis XIII. style, wherein panels of the first method are inserted amidst surroundings of the second method, Figs. 41 and 42. We will now proceed to a detailed study of the sources of ornament and their various methods of application.

SECTION II.—NATURAL FORMS.

Nature is a vast repository which yields to the decorative artist a boundless variety of combinations and devices. He may emphatically say, "The world is mine,"—trees, plants, and shrubs, whether with leaves or without, the brilliantly hued families of flowers and fruits, shapely bulbs, roots, and seeds, all are his to use as he pleases, either in floral masses, foliated scrolls, termini, wreaths, or pendent ornaments.

With reference to the first and second methods, a close observation of nature in all her moods is essential, in order to reproduce modelling and local colour with truthfulness and sympathy. In addition to this, judicious grouping and intelligent selection should be aimed at, so that the best points of an artistic decorative composition may be brought out. Such are the floral decoration of the Renaissance, the Lyons school, and those of our own epoch, represented by Rossetti, Holman Hunt, Burne Jones, and others.

If we pass onwards to the third method we shall find that the flowers and other natural objects employed cease to be a faithful imitation of nature and are rather "conventional representations founded upon it, yet sufficiently suggestive to convey the intended image to the mind without destroying the unity of the object they are intended to decorate."

In this latter method, if symmetry or rigidity be the characteristic of the object, the idea will be best conveyed

if the flower, used in its decoration, shares this characteristic, whilst graceful curves and gentle undulations should



Fig. 43.—Plants and Flowers.

be expressed by flexible and delicate outlines, Fig. 43. In a word, characteristic outline and simplicity of work-

manship should compensate for loss of complete design



Fig. 44 — Symmetrical Ornament with Distinctive Outline.
and charm of colour, Fig. 44. Admirable examples of this

style are seen in Persian and mediæval art, and also in works of our own times, where a revival of ancient methods has been eminently successful, Figs. 45 and 46.



Fig. 45.—Modern Persian Design.

From the foregoing remarks it is clear that the artist must feel no compunction in *simplifying* vegetable forms, when owing to their intricate or minute details, adaptation to decorative treatment would be difficult, and the



Fig. 46.—Decorative Use of Floral Forms.

clearness of the composition destroyed. Single flowers, such as tulips, lilies, narcissi, eucharis, jessamine, etc., should therefore be chosen as more appropriate than lovely roses and gorgeous peonies. Fig. 47 shows the treatment roots and bulbs may receive, and in what manner they may be used in ornament. It is needless to note that exceptional or abnormal elements should be discarded, as, however interesting from a botanical or



Indian.

XVth Century.

Fig. 47.—Decorative Treatment of Roots.

other scientific point of view, they would be out of place in a work of art; unless it should be found that some such *accident* were eminently appropriate, as we see in a certain class of stalk, which always breaks off at the point needed to interrupt the monotony of a long curve, Fig. 43.

Of late years artists have derived their studies and inspiration from nature, and the result has been a remarkable improvement in every art. This is nowhere more

apparent than in decorative composition, wherein designs of infinite variety, marked by truthful expression and feeling, have been introduced, which leave little, if any, room for criticism, and have superseded, none too soon, the *acanthus* of classic times. The latter we cannot but admire, when seen on Greek or Roman work of the best period, where its treatment is tender, delicate, and satisfactory in the highest degree. But even in the hands of skilful craftsmen it sadly deteriorated in process of time, until it became at last a frigid, painful object to behold. In illustration of the principle we advocate, the student is advised to examine the admirable examples of floral decoration afforded by the arts of Greece, Persia, Japan, Egypt, and the vigorous monumental Gothic ornamentation, Fig. 49, where the Egyptian, Greek, and Gothic forms, though treated conventionally, suggest budding nature, and have a due regard to natural growth. On Persian pottery, on the other hand, on dishes, basins, water-bottles, tiles, etc., very naturalistic representations of plants, such as pinks, roses, and hyacinths, are found together with animal, and in some instances even with human forms; whilst Japanese work is sometimes marked by exceedingly realistic treatment, at other times by conventional rendering. The richest collections of such works are found in the British and South Kensington Museums, and are easy of access to any one who wishes to study them.

Animal representation enters largely into decorative art, for the artist may call to his aid every class of living being, from man and the other mammals down to insects,

mollusks, zoophytes, birds, reptiles, and fishes; for in nature no object is contemptible, and all are capable of expressing beauty if rightly understood. The principle attending the rendering of floral objects, whether in a naturalistic or conventional form, is also applicable here.

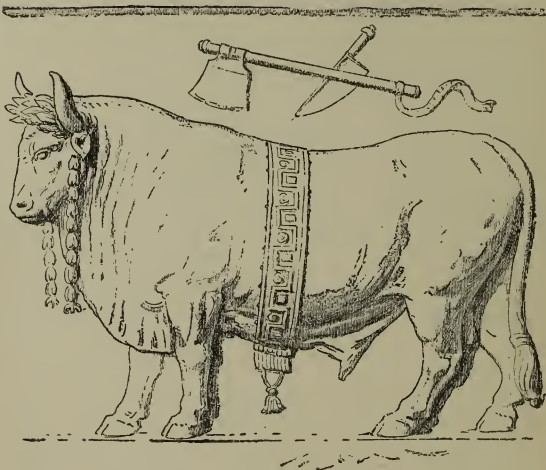


Fig. 48.—Roman Sculpture.

The student should bring out the special character of the animal under observation. Roman sculptures, those of the Renaissance, and scores of modern decorative compositions, will afford excellent examples, Fig. 48.

If we turn to the third method, we shall find that the representation must be still further reduced; since here



Fig. 49.—*Floral Decoration.*

again the animal is only expressed by a sharp outline,



Gothic.



Arabian.

Fig. 50.—Animal Forms.

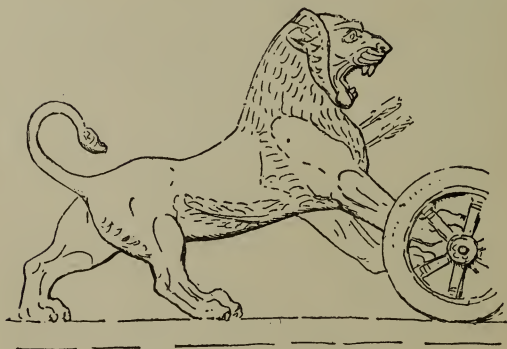


Fig. 51.—Assyrian Animal Form.

filled in with a flat tint, whilst accessories are either very

much subdued or left out altogether. But no matter how arbitrary in character, the form must always preserve sufficient reality to enable the beholder to know at once what it is meant to portray, Fig. 50.

The remarkable animal paintings of Egypt, such as the hawk, eagle, goose, ox, snake, and wrens, those found in Assyria, Fig. 51, and on Greek vases, the symbolic animals of Byzantium, the animal forms of Moorish heraldry, and on Mediæval suits of arms, were all similarly



Fig. 52.—Japanese Ornament.

treated; whilst the compositions of Persia, notably in her MSS., and those of India, China, and Japan, are interspersed with conventional animal forms, Fig. 52.

Then mention may be made of mythological conceptions, such as sphinxes, griffins, chimæras, centaurs, tritons, and those cusped-winged genii whose beauty and charm are so great and real, as sometimes to outvie the creations of nature, Fig. 53; and the symbolic, weird monsters of Arabian and Persian literature, which, if less

strikingly beautiful, are none the less curious, and which, when transplanted to Europe, developed into those fantastic creatures of the Middle Ages, Fig. 54, and still further into the *grotesque* productions of the Renaissance,



Fig. 53.—Mythological Ornament.

Fig. 55. Our space forbids entering into more detailed description of them, or of the fanciful, monstrous animal forms of Indian and Chinese art, whose peculiarities, both of form and expression, so frequently border on the grotesque.

The degree of civilisation, the form of government, but above all the religion of different peoples, have been



Fig. 54.—Mediæval Fanciful Ornament.

powerful influences in the fashioning of the human figure used in art. We are struck with its formal and rigid



Fig. 55.—Renaissance Grotesque Ornament.

character, whether on Assyrian or Egyptian sculptures (noble though the latter may be), in the mosaics of

Byzantium, or on the stained glass, paintings, and tapestry of Mediæval art; whilst its simple, graceful outline on Greek vases, enlivened solely by a few cunning touches, never fails to excite our admiration. This conventional treatment, as was observed before, began to disappear towards the fifteenth century, when painters and sculptors, encroaching on the domain of the decorator, sought expression in finished modelling and realistic colour. And here we may note that artists have, at all times, sought to *stiffen* the human figure, when it



Fig. 56.—*Cameos.*

forms but a component part of a great unit. This has been achieved in various ways; sometimes, as in caryatides, by simple omission of the arms; at other times it is the legs that disappear within some ingenious device; sometimes the form is reduced to a mere bust, mask, or cameo, the section at the neck being covered with a band, Fig. 56; at other times they have dispensed even with this, and given us a gaping neck which seems to belong to a decapitated head. In our opinion these modifications have not struck deep or far enough. If the end of art is to please, the impression produced by

figures, standing in uncomfortable positions, supporting weights which would crush them in reality, is to say the least very unpleasing, and therefore must be artistically untrue.

But the resources of nature are far from being exhausted with floral or animal forms ; heavenly bodies, for example, the sun, moon, stars ; natural phenomena, such as the thunderbolt, rainbow, clouds, and mist ; striking features of our planet, as lakes, seas, and rivers, have from the earliest times, entered into decorative composition. At first their application, doubtless from lack of knowledge, was very arbitrary or symbolic ; in Egypt, for instance, the representation of water was a mere zig-zag. But now the treatment is a faithful transcript of nature, save that when such elements are introduced, the representation should be generalized, the apportioning of the masses reduced, so as to call the imaginative faculty into play, and assist the expression and sentiment of the picture.

When the second method is applied, realistic representation is still the governing principle—albeit in a less degree—as we see in the nimbus and clouds, so commonly used in Renaissance art. The abuse of clouds as a means of decoration is easily explained on the score of their usefulness in hiding awkward joints or deficiencies of arrangement. We cannot but admire them in great painters, who introduced them to lighten their immortal pictures ; but it must be confessed that they fared badly at the hands of second and third-rate artists, and frequently became soft, formless, immovable masses, or distended balls thrown for little or no purpose across the

sky. They are fortunately a thing of the past, and now-a-days no artist could be found who would resort to expedients so obviously bad.

A well-defined outline should be associated with natural phenomena conventionally treated, as we see on coats of arms, in stellated arrangements, set out in geometric patterns of great precision, or in solar rays forming the glory of saints and martyrs. Sometimes, indeed, they have a symbolic meaning, such as the crescent moon of Diana, or thunderbolt of Jupiter.

SECTION III.—INVENTED FORMS.

THE rich storehouse of human industry has supplied the artist from the earliest times with accessories as varied as they are pleasing to the eye. Thus, tapestry, scrolls, dress, drapery, couches, chairs, vases, and candelabra; the appropriate tools and badges of commerce, art, and science; the arms, prows, anchors, rigging, and such-like used in warfare or in navigation, have all been pressed into service. Ornamentation forms a conspicuous feature in decorative composition.

Out of this abundance of materials, the artist can evolve trophies, groups, friezes, escutcheons, shelves, etc., and apply them naturally or conventionally, as the requirements of the composition may suggest. It is not necessary to remind the student that simple objects, capable of a distinct outline, lend themselves to decorative treatment more easily than complicated ones. Thus tambourines, lyres, violins, and trumpets should be chosen

in preference to modern wind instruments, with their intricate arrangement of valves. The same holds good in respect to ancient weapons and costumes, as compared with those of the present time ; but the student must not infer from this that we wish all modern elements excluded from decorative art ; on the contrary, we think their application highly satisfactory if introduced in as simple a manner and with as few details as the subjects themselves will admit, Fig. 57.

Architecture has occupied from the earliest times a prominent position in decorative art. This we see, whether in the admirable paintings which recent researches in Egypt have revealed to us, in the bas-reliefs, mosaics, and ivories executed under Byzantine influence, in the mosaics brought to light by excavations at Pompeii and Herculaneum, or in Mediæval sculptures, paintings, and Oriental MSS. ; and its unfitness in psalter or missal is condoned in consideration of its realistic character and quaintness of expression. In warm regions, and at an epoch when the conditions of life were different from our own, this style of decoration was appropriate, and suited dwellings that had little or no furniture to interfere with it ; but in our houses, and with our style of furnishing, the case is very different. It is still less to our taste in the shrines and pyxes of the fifteenth century, wherein portals of cathedrals are represented with due accompaniment of towers, steeples, buttresses, and gargoyles, and extremely objectionable in the lanterns, candelabra, and censers of the Italian Renaissance, where, for no apparent reason, porticoes and whole colonnades are introduced,

and their various orders clearly indicated. This faulty style was again revived under the First Empire, when grotesque imitations of Greek and Roman temples entered into the decoration of furniture, and were conspicuous everywhere. This, bad as it may seem, is not

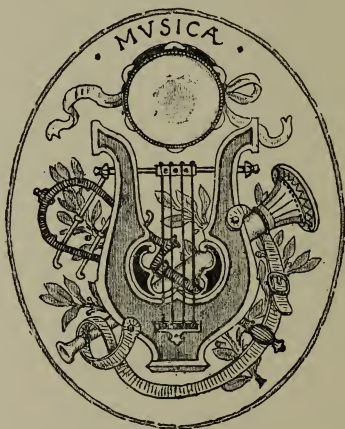


Fig. 57.—Decorative Use of Musical Instruments.

much worse than when we are bidden to tread, lean, or sit on vividly portrayed animal or floral forms.

In conclusion, I would remind the student that if his taste leads him to use architecture in ornamentation, it should not be made to look an imposing pile of stone, brick, or marble; he should take care to keep its texture delicate, hazy, and vaporous, so as to seem a fit habita-

tion for fairies and celestial beings ; and by due attention to works handed down to us by different nationalities, he will inform his judgment and acquire taste which will enable him to pronounce at once on the merits or demerits of any composition.

SECTION IV.—GEOMETRICAL FORMS.

GEOMETRY, as a science, is as ancient as civilisation itself ; its adoption as a basis or accessory in decorative art has been, and though in a less degree, still is, almost universal. The charm that a geometric basis is able to impart to any design has no doubt been a powerful motive in determining its selection, while its aptitude for evolving complex and beautiful combinations out of simple forms, such as the lozenge, the pentagon, the hexagon, the square, the triangle, etc., is a further recommendation. Elaborate interlacing of bands and lines are favourite devices in Celtic work ; the chief ornamentation of Gothic buildings, both on the Continent and in this country, is dependent upon, and springs from, combinations markedly geometric in character ; whilst with nations, such as the Arabs, Hindus, and Moors, who are debarred by their special religions from the use of human, animal, or vegetable forms, its application to architecture and every art product is almost universal.

Geometric forms are seen in crystals, and in some kinds of star-fish ; a large number of our common flowers are found to be pentagonal in plan, the elder, the

primrose, the cockle, columbine, and bittersweet, for example; whilst the triangular, the hexagonal, or the square arrangement is seen in others.

The student will find some of the most typical arrangements placed with their diameters in contact, and based on straight or curvilinear lines, in Figs. 58 and 59.

SECTION V.—EXPRESSION IN DECORATION.

EXPRESSION is a principle dependent for its realisation upon the same laws as those governing general effect, which, although incidentally treated in the course of this work, we must now notice. Balance and harmony between the component parts, whether of modelling, colour, or design, are important, nay, essential qualities in order to obtain expression. Thus a composition will be inharmonious, and therefore fail in expression, if finished modelling and natural colour are applied to rude and sketchy design; it will be equally incongruous if fantastic colour is associated with complete design and a realistic interpretation. Objects, too, should preserve their character so as to be easily understood; and any straining after recondite or mysterious significance, which is difficult of solution, should be avoided. If the student will consult the decorative productions of Mediæval and Renaissance art, those of such painters as Dürer, Holbein, Du Cerceau, together with the floral compositions of Rossetti, H. Hunt, Burne Jones, and others, as against nearly all those of the seventeenth and eighteenth centuries, he will find that these last, despite their undoubted

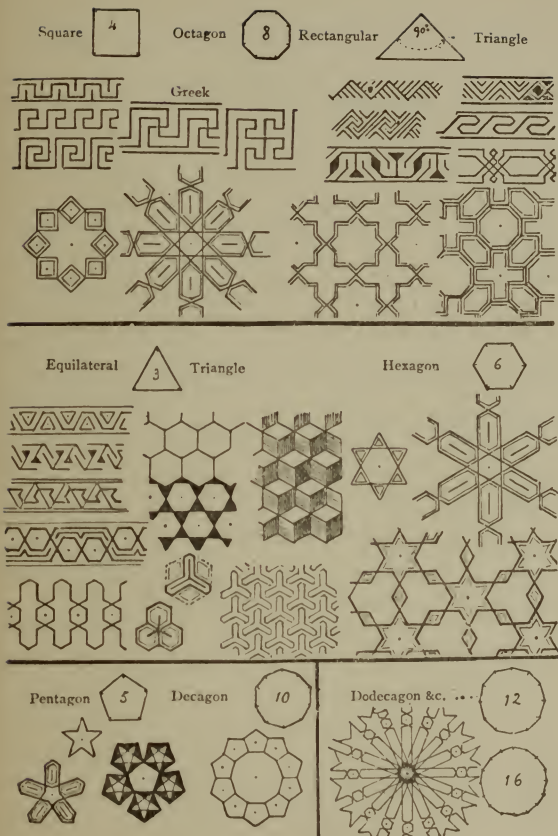
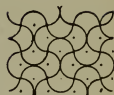
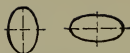


Fig. 58.—Geometrical Forms.

Circle.



Ellipse.



Ogive. Trefoil. Quatrefoil.

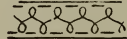
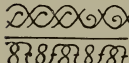
Curves.



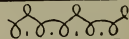
Cycloid.



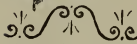
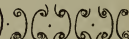
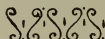
Spiral.



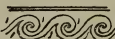
Nodules.



Ionian volute.



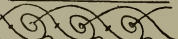
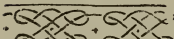
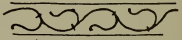
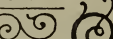
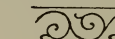
Anti-spires.



Classic scrolls.



Double spires.



Interlacings.

Foliage and scrolls.



Græco-Roman.



Palm leaves.



Indian.



Oriental accolades.

Fig. 59.—Geometrical Forms.

qualities, both as regards technique and skill of workmanship, fail to interest us or win our sympathy, because neglect of this principle makes them at best frigid productions utterly devoid of expression. A decorative artist, a painter, a sculptor, an engraver, an architect or a designer, should train himself, by constant use of pencil or chalk, to reproduce as faithfully as may be, vegetable, animal, or human forms, as they occur in nature, noting carefully the character of each, which he may afterwards imitate or modify according to the style he shall select. In obedience to these rules, manufactured objects should also receive his attention ; his drawings being made from the objects themselves, rather than from the drawings of other artists. His knowledge should be further increased by a due apprehension of geometric forms and their consequent development into combinations, as varied and rich in general effect, as they are pleasing to the eye. Perseverance and untiring practice will insure him proficiency as a draughtsman, and, what is far more important, an intimate and general knowledge of natural form and colour, which will be of the greatest utility. Upon the truthfulness of this he will have mainly to depend when he comes to paint on a large scale.

We will end these remarks by suggesting frequent reference to *good works*, rich collections of which exist in all our museums and in many private dwellings ; the unfinished designs of great masters, such as Raphael, Titian, Holbein, Turner, Sir Joshua Reynolds, and others, will initiate the student into their *methods*, and in due time enable him to produce good work of his own.

CHAPTER III.

ORNAMENTATION APPLIED TO FORM.

OUR remarks have been, hitherto, confined to form and decoration, each separately; we will now consider them together, and dwell on some principles governing the production of ornament applied on form.

SECTION I.—SYMMETRY.

Perhaps the most important of these is symmetry; respecting which Mr. Ruskin says, "I only assert that it is necessary to the dignity of every form, and that by the removal of it we shall render the other elements of beauty comparatively ineffectual; though, on the other hand, it is to be observed that it is rather a mode of arrangement of qualities than a quality itself, and will have no power over the mind unless it should possess all the other constituents of beauty. A form may be symmetrical and ugly, as many Elizabethan ornaments, yet not so ugly as it would have been if unsymmetrical."

Symmetry has been largely employed by ornamentalists of all periods and nationalities. Good illustrations are found in the works of Egypt, Assyria, Greece, Rome, those of the Renaissance and of modern times. Symmetry

may be *absolute* or *relative*; it is absolute when a design is composed of devices rigorously similar, disposed



Fig. 60.—*Absolute Symmetry.*

inversely on each side of one or more imaginary lines termed *axes*, Fig. 60.

It is relative when it admits of variety in the subordinate parts; such would be a decorative panel, with figures, caryatides, drapery, and pendants of diversified position, in which a just balance of the masses has been

regarded, Fig. 64. Obviously the principle of variation, or

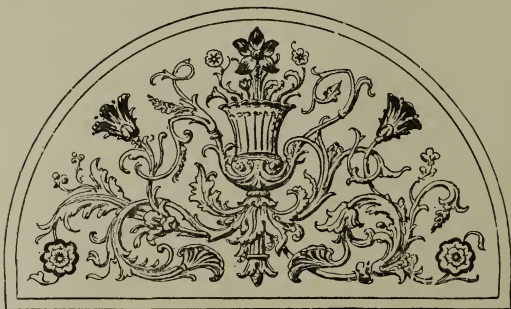


Fig. 61.—Relative Symmetry.

relative symmetry, Fig. 61, demands more thought and



Fig. 62.—Unsymmetrical Arrangement.

subtler handling than is required in absolute symmetry.

This may be developed by substituting for somewhat rigid symmetrical arrangement of strict similarity the free play of fancy agreeable both to the mind and eye, Fig. 62. But undue variation is apt to result in confusion and disorder; thus one side only of a design should not be filled up to the entire exclusion of the other; some



Fig. 63.—*Fanciful Decoration.*

appropriate device, however small, should be thrown in to avoid the appearance of incompleteness, Fig. 63.

Chinese and Japanese art is frequently unsymmetrical; lateral balancing of parts, due harmony, and proportion of masses being purposely discarded.* Hence close

* The same may be said of the *rocaille style* of Louis XV., which, though not plastically like Japanese art, is marked by such an utter absence of symmetry, that it would not be tolerated but for the spirit and skill of its execution. Hence the student should first thoroughly master those art productions which are marked by a principle of symmetry; this done, reference to a more erratic style will form a useful and fitting supplement to his knowledge.

imitation of Japanese work is not to be recommended ; despite great merit both as regard finish of execution and exquisite natural rendering, its faulty composition cannot



Fig. 64.—Mixed Decoration.

be overlooked. For instance, flowers, fruit, birds, or figures, are scattered haphazard on forms, without regard to curved surfaces, or edges defining plans, showing an

absence of symmetry not compensated for by qualities of make, however excellent these may be.

By Japanese art, we do not mean the cheap products which have glutted our markets, and are to be seen in shops and in many private houses, which, though disclosing much productive skill, have little else to recommend them. And if this is true of the green tree, what shall be said of the dead tree; of second and third-rate imitations of Japanese pots and pans; Japanese textile fabrics, redeemed by none of the charm and grace of the originators? True, we tolerate the commonplace productions of the seventeenth century, but that is because we are forced into something like admiration for the consummate knowledge displayed by the artist, in the dexterous handling and just harmony of his composition, qualities conspicuous by their absence in Japanese art.

PRINCIPLE OF SIMPLICITY.

BESIDES symmetrical arrangement as opposed to an irregular or unsymmetrical one, there are other principles which we must now consider; the first of which is simplicity. The principle of simplicity is the chief feature of all early art, and is mainly dependent upon another simple element for its decorative effect, the horizontal line. This is very well seen in Egyptian temples, in Assyrian, Doric, Roman, and early Gothic structures of all countries, marked by great simplicity of treatment. Good illustrations are afforded in the cathedrals of Winchester and Salisbury, Westminster

Abbey, and many other buildings, wherein simple forms and details are conspicuous features. Simplicity of treatment imparts a marked character to the buildings to which it is applied; hence its frequent occurrence when

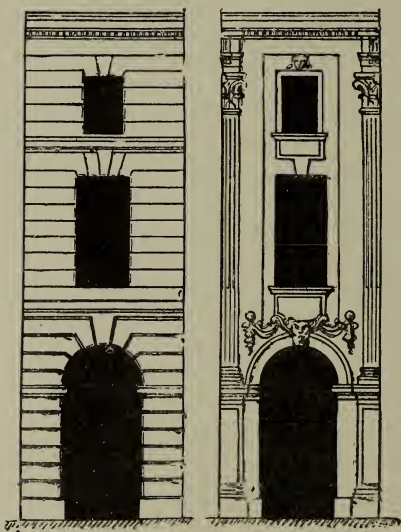


Fig. 65.—Simplicity and Complexity. also h 94

massive importance and dignity are required. Perhaps the best examples of this principle are in Early English work, notably the churches, which at once strike us by reason of their massive and noble proportions.

If the artist adopts simplicity of treatment, he first

*Illustrating rhythm of masses
note the shading effect of horizontal lines
& how shape rises more and more from
top to bottom upward in No 2*

apportions his design into one or more grand divisional sections which may embrace secondary divisions, subdivided in their turn by details ; but if his choice should fall upon complexity of arrangement, he begins by dividing the whole composition into successive parts, each possessing its particular details. Fig. 65 shows two front bays, each having similar dimensions and each pierced with smaller bays of like character and disposition, affording good examples of these principles.

The principle of complexity is a development of the principle of simplicity. It is met with in the later monumental works of India, Greece, and China, in the first period of French and Italian Renaissance, especially in the church of St. Mark at Venice, and the Duomo at Milan. In England it is the chief characteristic of Later or Decorated Gothic ; Henry VII.'s chapel at Westminster affording a good illustration of complexity of treatment and overloading of ornament, not to be found in earlier works. Monumental bas-reliefs, mural paintings, tapestry, stained glass, flooring, or any large surface, may receive either treatment. Both principles are good and useful in their different ways, and both may be applied with perfect propriety and fitness according to the nature and the position of the object decorated. It is clear that an object on a level with the eye may be more elaborately ornamented than one viewed from a distance, and the nobler parts of a building receive greater care than those destined for less important uses. More care should be bestowed upon the drawing-room, for instance, than upon the kitchen.

SECTION II.—DIVISION OF SURFACES.

THE general forms being duly considered, these should be divided and ornamented in leading lines on the face of the work, either slightly sunk, flat, or in relief; the intervening spaces may then be subdivided and filled with similar ornament until the whole surface is covered. In



Fig. 66.—Divisions in Height and Breadth.

a rectangular form, in a panel, for instance, such lines will be horizontal and vertical; in round pieces, such as vases, small columns, and the like, they will follow the outer edge or pattern and the bisection will be horizontal and circular; whilst flat pieces will admit of radiating and concentric divisions, Fig. 66.

To make our meaning clear, we will call the intervals dividing the concentric and horizontal sections *height*

divisions, and those occurring between the radiating and vertical cuts or sections, *width divisions*.

The student, having divided the surface to be decorated into principal sections, must next consider the kind of effect he wishes to produce, and be careful to allow for the relative position of all the members, so as to obtain a clear, well-proportioned, and harmonious whole. These principles, as will be observed, are the same which regulate good proportion of form. Hence height divisions should only be applied to symmetrical, pentagonal and

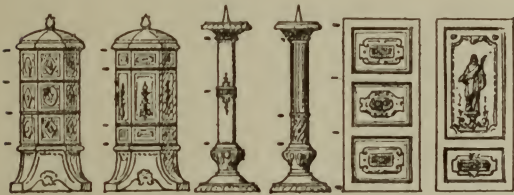


Fig. 67.—Height Divisions.

round forms, or surfaces with rectangular outlines, each member or section affording a similar development, Fig. 67. But if, on the other hand, we had to deal with outlines bulging out and contracting in turn, or surfaces of circular and diversified contour, then height divisions should be *unequal*, one being treated as the dominant, Fig. 68. In obedience to this principle, it is obvious that equidistant sections would be faulty if applied on irregular forms, a similar repetition, or “repeat,” as it is termed,

being out of harmony with the inequality of the corresponding outline, Fig. 69.

Fig. 70 illustrates the appropriate section of the

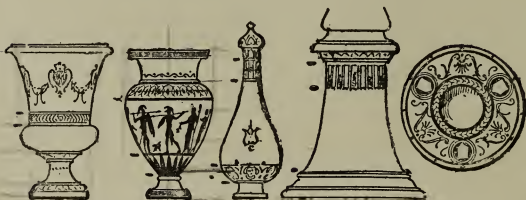


Fig. 68.—Dominant Divisions.

symmetrical form A, which would be inartistic in form B, bulging out towards the top.

Height divisions may be used in ovoid and conical forms, affording gradual regular contractions, of frequent occurrence in vases, horns, the outlines of sheaths, and

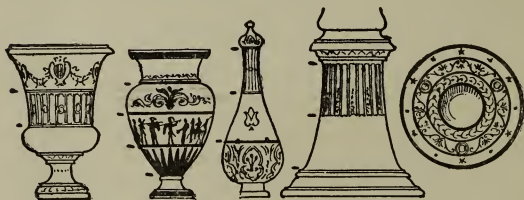


Fig. 69.—False Equality.

the like ; but care must be taken to follow the scale or gradation of the outline, Fig. 71, whilst width divisions may be associated with forms of continuous outlines or rect-

angular surfaces, presenting regular or uniform outlines ; such an arrangement is seen in circular discs, in panels,

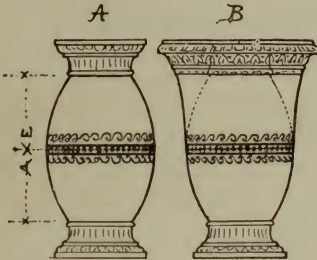


Fig. 70 — Good and Bad Sections.

and other like forms, wherein each member is but a repetition of the other, Fig. 72.

When surfaces are possessed of different heights, or jagged outlines, width divisions should be *unequal* and



Fig. 71.—Height Sections graduated to Outline.

follow the variations of form, Fig. 73. In spiral, serpentine, or helical forms, presenting circular, flat, or raised

surfaces, the bisection is horizontal and vertical, and the divisions, although regular, become *oblique* or slanting and may be treated with great freedom; but care must be taken to make spiral forms converge regularly towards a



Fig. 72.—Width Divisions of Uniform Outline.

common centre, whilst oblique and twisted forms must be strictly parallel to one another, Fig. 74.

Common-sense and the inherent feeling in man of a striving after the beautiful, will be the best counsellors in

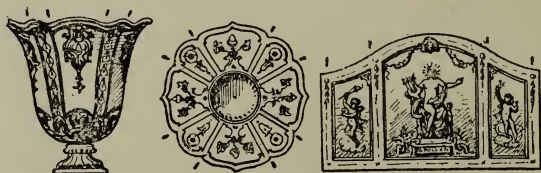


Fig. 73.—Divisions necessarily Unequal.

the selection of appropriate objects not derived from nature, whilst a just apprehension of the fitness of things will prevent errors of judgment in the working out of forms in materials not properly belonging to them. From

the foregoing remarks, the student may perceive that ornament which appropriately divides the surfaces, be it a band, fillet, or any other simple device, well applied on the object, will at once raise its artistic character. This is exemplified in Greek vases, seen in our Fig. 1. As we observed before, the disregard of the Chinese and Japanese for any kind of division which may fairly be considered as symmetrical is carried so far, that their ornaments are scattered broadcast over the whole surface



Fig. 74.—*Oblique Divisions.*

without consideration for plans or outlines. But it cannot be denied that many of their decorative pieces would gain in having some band or divisional section, as may be seen in vase A, corrected in vase B, Fig. 75.

In conclusion we would remind the student, that whether he adopts a symmetrical, unsymmetrical, or alternating mode of ornament, he must above all things avoid uncertainty of expression and meaning in the division of surfaces, under penalty of violating the true

laws of decoration and marring the effect of the composition.

SECTION III.—DIRECTING INFLUENCE.

DIVISION of surfaces leads naturally up to the principle

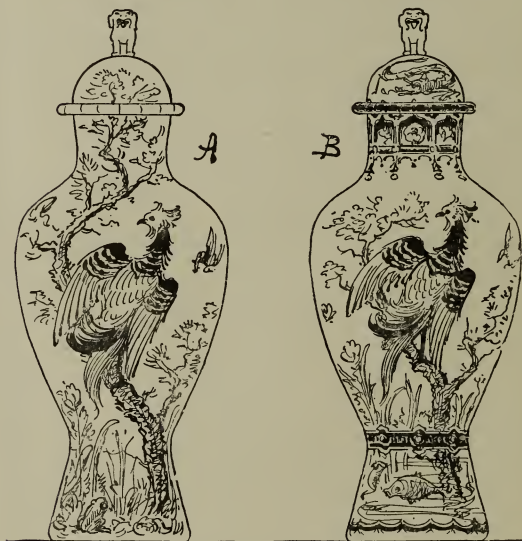


Fig. 75.—Contrast of Undivided and Divided Surface.

of order which ought to prevail in decorative art, and the fitness of ornament to its scale and position. Thus square, rectangular, or elliptical forms should be differently

✓ Balance

treated ; ornament appropriate to flat surfaces, if applied to ovoid or conical shapes, will lose part of its charm and peculiar character from the mere fact of its misplacement. Hence, it is necessary that the artist should

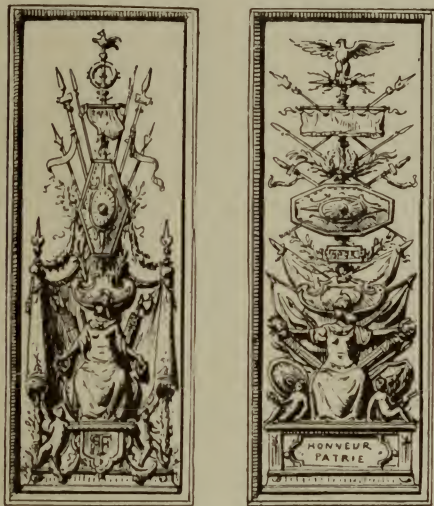


Fig. 76.—Appropriate and Faulty Ornament.

compose and study every decoration in view of one particular form, and one only. If we turn to flat surfaces, such as rectangular panels, wherein the ornament alone is unsymmetrical, we find that the prevailing dimensions should be vertical, and the main lines of the decoration

and general arrangement run parallel to the leading outlines of the panel, exemplified in Fig. 76, A showing appropriate ornament, B, faulty. The case would be reversed in a panel with horizontal lines, whilst it is self-evident that a *square* panel having all its sides equal, cannot be governed by any directing influence.

Ornament applied to flat surfaces presenting curved outlines should follow their flow, or, at any rate, not impede it. Thus the main lines of the decoration of a circular or oval piece should be so managed as to avoid awkward crossings of the border line, and, by skilful inflections, glide in a *tangential* or *parallel* direction to the outline, except in cases when they follow naturally a concentric or radiating direction, and sharply cut the border. The Persians, in the floral treatment and compositions of their ceramic vessels, have left models for us to imitate, Fig. 77. Had a like balance and harmony of form and ornament marked Japanese work, their art would be almost perfect. The same principle applies, though in a less degree, to human and animal forms, but as they cannot be subjected to the same modifications as floral ornaments, they will require thoughtful care when introduced in narrow fields, in order to avoid ungraceful postures or encroachment upon boundaries. Many examples of mediæval work exhibit figures tortured into painful positions from want of consideration to ways and means. The Greeks themselves have not always adhered to this golden rule, notably in their religious vessels, wherein the appearance of figures extending over the deeply inflected curve of the neck of the vessel, is not

proper to the human form, Fig. 83. This error of judgment was reproduced by ceramists during the Italian and French Renaissance, especially the schools of Urbino and Nevers. Nevertheless, no one viewing Fig. 84, a fine specimen of Rouen strapwork ware, in which



Fig. 77.—Persian Treatment of Flowers.

the principle of the fitness of ornament to the form is strictly kept in view, will fail to perceive the superiority of the Urbino example, marked by inimitable grace, subtlety of colour, purity and richness of design. It is a marvel of ceramic art, which, though faulty in

Urbino

construction, may well be held up for our admiration, but which should not be rashly imitated by the novice, lest his efforts should result in woeful disaster. The old Italian medallion, Fig. 78, is a good illustration of a subject kept strictly in harmony with the outline.



Fig. 78.—Subject in Harmony with Outline.

Rustic and picturesque objects, though admitting of greater freedom of treatment, must likewise be conceived with reference to the form they are to decorate, Fig. 80; whilst shields, covers, medallions, bosses, and fans, in fact every form of ornament which may be divided into circular bands, should follow the general outline, Figs. 63 and 81. Forms in relief present an immense variety of curves and

+ Balance also

scrolls, yielding great richness of effect, very well seen in the shafts of columns, in plinths, and the like, and, owing to their close proximity to the spectator, may receive elaborate ornament, Fig. 79. Simple curvilinear surfaces, with concave or convex outlines, admit of rich decoration, but care should be exercised in the selection of ornament



Fig. 79.—Ornament suited for near point of View.

that will readily adapt itself to the irregular outlines of the work.

To make our meaning clear we will take an example. Fig. 82 shows a form with a double curve, the lower convex and the upper concave answering to the *cyma reversa* of classic architecture, on which a spiral device A has

been applied. It is seen at a glance that the ornament, good in itself, has become bad simply because it is applied to the wrong form ; but if a device affording in its outline a distinct analogy with the outline, as in section B, had been chosen, the application would at once seem natural



Fig. 80.—Rustic Ornament.

and appropriate. The same may be said of subjects applied to a section with leading vertical outlines, possessed of inflections in harmony with the form. These assist in bringing it out and emphasizing it. The ornament met with in narrow partitions, such as fillets, is necessarily simple in character and affords hardly any

but the acanthus, the lotus, papyrus, and the other native plants of free growth always to be found on the banks of the Nile. Laurel, oak, and parsley leaves, on the other hand, are of frequent occurrence in all classic and



Fig. 83.—*Inartistic Inflection of Figure.*

h. 52

modern art, whether on architecture, ceramic, wood, or metal-work.

Bands are introduced on vessels in order to avoid undue redundancy of form, and to invest them at the same time with an appearance of solidity. This important principle was never absent from the Greek or Etruscan artist's mind, and is also well remembered in most work of our own days. It need hardly be

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Fig. 80.—Rustic Ornament. h 84

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said that their application on retreating forms would be most incongruous. The lower portions of objects too, are often ornamented with devices of great variety and of



Fig. 84.—Rouen Strapwork Ware. h 83

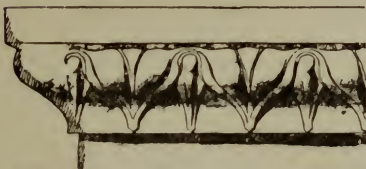
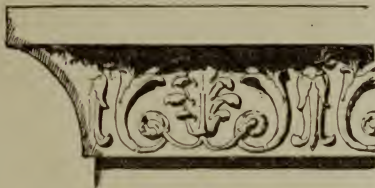
pleasing effects, which have an appearance of affording support to such objects, Fig. 89. Sometimes the form is very minute, sometimes it is merely a reticulated veil, and sometimes it resembles a basket in which the vessel is

placed. In a word, the whole storehouse of nature, as well

Ovolo.



Ogee.

Double
spire.

Anti-spire.



Fig. 85.—Mouldings. 277

as man's products, are open to the artist, but he must not

forget that ornament is an accessory and is to be used to enhance the beauty of form, but never to hide or stultify it.

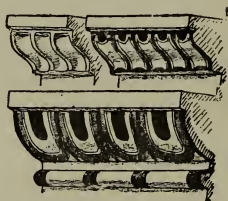


Fig. 86.—Moulding Designs suitable to any Form. 1287

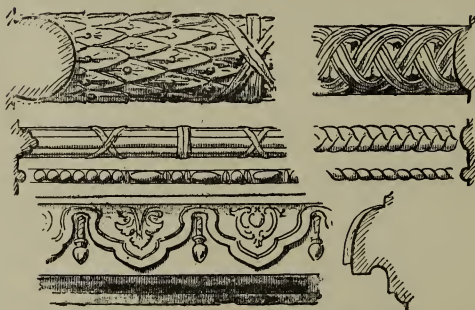


Fig. 87.—Forms suggested by Nature, &c. 1288

SECTION IV.—OPTICAL ILLUSIONS.

THE soundest eye is subject to errors of vision, commonly known under the name heading this chapter, one of which we will now notice as affecting decorative composition. A very simple example will suffice to make

the subject perfectly plain. Here are two rooms of equal height and dimensions; horizontal and flowing forms



Fig. 88.—Horizontal Bands applied to Form.

are freely introduced in the wall paper of No. 1, whilst perpendicular lines are marked features of No. 2. Everyone will feel the difference of the two rooms, for whereas



Fig. 89.—Ornament giving an Appearance of Support.

the first will seem low and oppressive, the other will appear lofty and airy, because in the first instance the

eye travels from each successive section, in the latter it is carried over the whole extent of the vertical line. Hence, when it is wished to reduce the height of an object, horizontal or oblique lines should be employed, and perpendicular lines when height is required. This is well understood by upholsterers, decorators, and milliners, who, by the simple exchange of forms, can elongate or give breadth to the work in hand, Fig. 65.

The repetition of oblique lines, parallel to one another,



Fig. 90.— Decoration of Solid and of Weak Appearance.

produces a warped, slanting impression, well exemplified in the three vases, Fig. 90. We might also cite a certain class of so-called Oriental edifices, such as the spiral, gadrooned, bulb-like domes of Russian churches and twisted Roumanian steeples. But oblique or slanting lines have so obviously a feeble appearance, that forms like the serpentine, spiral, etc., should be used sparingly, as apt to create weariness and a feeling of unrest if persisted in. Oblique lines, moreover, when covering a

surface of any length, should not be left to themselves; vertical and horizontal forms, or details in which these elements form the chief feature, should be introduced as a framework, thus investing the composition with strength and solidity. The finials met with throughout.



Fig. 91.—Examples of the proper use of Form.

Hellenic, Roman, and Italian Renaissance architecture show that their designers paid attention to this principle; the Arabs were equally careful to introduce inverted angular forms in the roof of their edifices, whilst the absence of similar details on the gabled buildings of the

Middle Ages produces an appearance of incompleteness, Fig. 81. 91 The knobs found at one or both ends of the banisters are due to the same principle.

A curious effect may be observed in geometric figures composed of a number of parallel lines by simple change of position one to another, producing combinations of so different a character as to seem scarcely possible that they have been formed out of the same material, Fig. 82. The Arabs, at little cost of mental effort, it must be

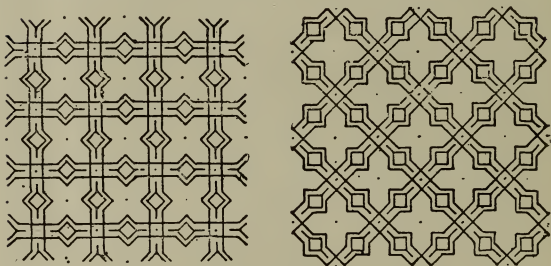


Fig. 92.—Geometrical Ornament.

admitted, are very ingenious in evolving most complex and elaborate ornament out of simple geometric forms; but these sink into a subordinate place as we rise higher and make flowers and animals the chief feature of the ornament.

When the form is divided into squares, particular attention should be exercised in drawing the outline with great precision and accuracy; its natural form should be so apparent as to need no testing with the compass. Prominent features in the inner ornament should be

discarded as interfering with the general effect; hence art-subjects, A, B, C, Fig. 93, will be appropriate in equilateral rectangles, and F, G, H will work well in squares. The angles of square forms or panels are generally furnished with ancones, knobs, and the like, to set off their natural outline; but if the repetition only occurred at two of the angles their character would be destroyed, Fig. 94; albeit, they would harmonize with the irregular contour of rectangular forms.*

This principle does not impede the freedom of action of the ornamentist; it serves rather to show the resources



Fig. 93.—Ornament suitably treated in Squares.

placed at his disposal and the consequences resulting from different arrangements. The appearance of form is so deeply modified by interior and exterior ornament, that we might almost say that it only possesses the proportions it *seems to have*. Be that as it may, we hope to have convinced the student of the importance of preserving its distinct and entire value.

V.—STRAIGHT AND CURVED LINES.

As these form the *sole element of ornamentation* it will not

* Diversity of inner subjects need not be observed in such panels occurring in ceilings, wainscoting, etc., because the forms being contiguous set off one another, notwithstanding the repetition of identical general outline.

be deemed superfluous if we try to show in what proportions they enter decorative work. In principle it is not easy to understand how the use of one could be adopted to the entire exclusion of the other; since curves alone would produce a plastic, soft appearance, unsatisfactory



Fig. 94.—Decided and Undecided Squares.

to the mind and eye. Hence filleted, moulded entablatures, encirclings, or set borders, should have their length of straight lines relieved by some curvilinear detail, yielding variety and softness of aspect, Fig. 95. Short, straight lines of different direction, slanting or perpen-

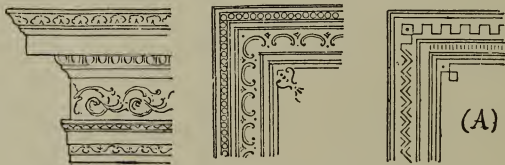


Fig. 95.—Straight Lines combined with Curves, and singly.

dicular, would, indeed, do this, but would fail to remove their rigid character (see design in Fig. 95 marked A). If, on the contrary, the decoration consisted of a series of flowing lines, concentric and parallel to one another, frequently met with in vaulted or double-faced arches and

circular-headed portals, the introduction of straight forms would be of excellent effect, Fig. 96.

The multitudinous concentric or double-faced arches and archivolts of Romanesque and Anglo-Norman architecture would be objectionable, had not the builders relieved the monotony of identical lines by enriched mouldings extensively introduced in the chancels, doorways, etc. Windows of this kind may be studied in the cathedral of Peterborough, the Chapter House of Bristol, and many more. Straight lines are the supporting principle of the general structure ; to them are due columns,



Fig. 96.—Combination of Curves and Straight Lines.

lintels, imposts, cross-bars, pedestals, etc., and upon these rest the more flexible and graceful curved lines, forming arches, circular headings, medallions, pendants, roses, and scrolls of every kind.

Fig. 97 shows two mirrors, with an oval border round the glass, capped by finials and scrolls, whilst scallops and termini occupy the lower portion. A, an imitation of the Regence style, consists of curvilinear forms ; B, on the other hand, is a pleasing combination of straight and curved lines. It will be readily admitted that construction B is superior to construction A.

This principle might be applied to furniture, bronzes, decorative panels, and the like, wherein details, often of high quality, look incongruous, because they are unsupported by a rectilinear element. This want of construction is very apparent in the *rocaille* style of Louis XV., whilst the compositions of Louis XVI., despite commonplaces in some of their details, are always well balanced

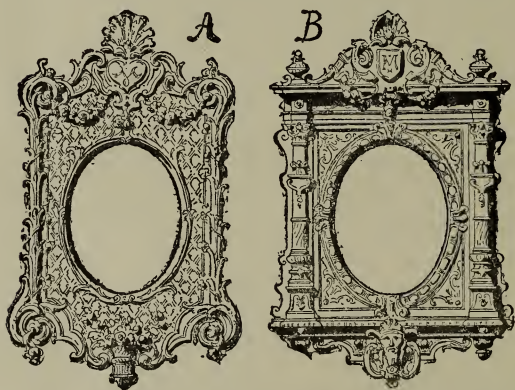


Fig. 97.—*Curvilinear Forms pure, and in combination with Straight Lines.* p 99

and of pleasing effect. A nice combination of straight and curved lines is found in Italian Renaissance, Ghiberti's doors of the Baptistery in Florence being a conspicuous example. In England the "Early decorated" affords many noble specimens, both in churches and buildings, in which proportion and just balance of the two elements are observed. Persia is another instance

where great—perhaps too great—a use of straight lines is employed, as settings for ornament in structural work ; whilst it forms the basis of all Arabian art, be it in ceilings, wainscotings, windows, doorways, or the like. Polygonal and stellate forms, disposed at stated intervals, are sometimes introduced to relieve monotony ; and the latter, owing to their numerous points, produce at a distance the appearance of repetition of circles, affording enrichment and great variety, which may be increased when roses, scrolls, inscriptions, etc., are used, their elegant curvatures investing the whole with finish.

From the foregoing remarks it is seen that decoration to be attractive must be possessed of variety ; therein lies the secret charm which attaches to a large proportion of Classic, Mediæval, and Renaissance art, marked by careful selection of geometric, floral, and zoomorphic subjects. The ideal is reached when the human form is introduced, either in painting, architecture, or sculptured work. The eye is an exacting organ, requiring strong and subdued contrasts to relieve monotony ; *i.e.* subjects placed in juxtaposition, some of which may be viewed from a distance, whilst others will bear closer inspection.

VI.—SIZE AND PROPORTION IN DECORATION.

THERE is another principle of the utmost importance in decorative art which we must now consider at some length. Before doing this, however, it will not be deemed irrelevant if we warn the beginner that decorative scale, as it is sometimes called, must not be confounded with

scale of proportion, by means of which a design may be reduced or enlarged almost to any extent, whilst rigorously preserving the relative dimensions of the various members, and which is familiar to every artist; whereas decorative proportion, like everything exclusively pertaining to art, is far more complex in character, and embraces the whole decorative scale, and should be determined by the *size and position of materials at command*, its *general aspect*, as well as with reference to *man's stature*.

Art is created by man and for man; of this we see indications everywhere: in the steps, pews, lecterns, and pulpits of churches, where, no matter what the dimensions of the building, be it Westminster Abbey, York Minster, or a small country church, their average size is appreciably the same. In like manner the chairs, tables, and cabinets of our houses, the books we read, the carriages in which we drive, the umbrellas, fans, etc., we carry, are all proportionate to our use and size. As resulting from the principle, when faithfully carried out, that the components of a drawing or plaque must be proportionate to the unit, it will not be difficult to determine the approximate dimensions of the work presented for inspection. Thus, Fig. 98 shows two arches with an appearance of equal height, but where the relative size of the balustrades indicates a notable difference in the real dimensions of each.

Objects of ordinary use should be made beautiful and useful; for a thing, however lovely, if it is unpleasant to use will be set aside, even for one less beautiful, and thus fail in its purpose. Therefore, the hilt of a sword, the

handle of a screen or ewer, should be so formed as to fit the hand which is to use them.

All the objects of larger dimensions in Fig. 99 have been purposely represented smaller ; but notwithstanding this inversion they maintain their superiority of size, and indicate that they were executed in view of the human hand.

The size of the materials is another way for testing the

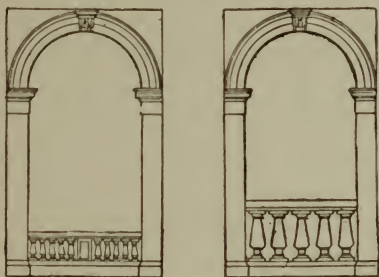


Fig. 98.—Arches of apparent Equality of Scale whose Balustrades indicate relative Dimensions.

dimensions of an object. Given two buildings with bricks showing externally, it will be easy to determine the relative proportions of the structures by counting the number of courses. In like manner the number of panels of a door or wall, despite the diversified latitude of the woods employed, will indicate the probable measure of their dimensions.

Another principle, scarcely less important, consists in so ordering a decorative composition that its primary

designs may be viewed at the distance required for embracing the whole at a glance, and which we will call normal distance, because it is instinctively adopted by every beholder.* So that if to get a good view we are not perpetually obliged to shift our position backwards and forwards in order to read the details or judge of the general effect, the amplitude of ornament will not be proportioned to the dimensions of the work, but to the

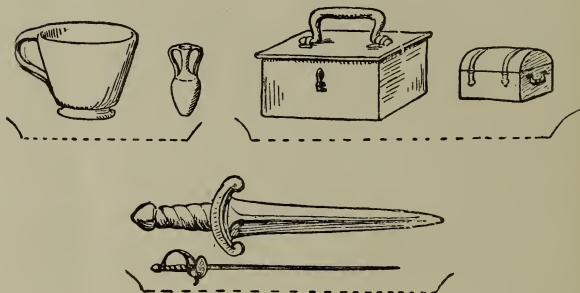


Fig. 99.—Objects whose real Scale is apparent.

normal distance. The object to which ornament is applied must determine its character ; thus a necklace, locket, bracelet, or small furniture, meant for close inspection, admits of elaborate enrichment and finish ; whilst panels, vases, tables, chairs, etc., which are seen

* Within this mean distance the eye sees the designs one by one, and beyond it they disappear into indistinct masses. Exception is not made of short-sighted or long-sighted people, as such infirmities are corrected by glasses.

at a certain distance, may be less ornamented and on a larger scale.

The ornamentation of a dessert-plate, for instance, should be on a smaller scale than that of a decorative plate, which is to hang on a wall and be viewed from a certain distance, although both may be of the same dimensions. Respecting plates, Dr. Dresser says : " Little ornament should be placed in the centre ; but if there is a central ornament it should be radiating in character. The border should also consist of simple members repeated, for if portions are covered it will not look well. Ornament that has a right and wrong way upwards should be avoided, for it would be inappropriate in such a position." But the scale of ornament should be increased for wall-papers, stained-glass, or architectural decorations, which are destined to be viewed at a greater distance, whilst the proportion of interiors should be less than that of exteriors. In monumental buildings of great altitude, the ornament, whether painted, sculptured, or in bas-relief, must increase from the base to the top, as the details of the upper portions will only be seen from a very great distance ; well exemplified in the frieze which stood round the Parthenon at Athens, portions of which are now in the British Museum. As offshoots of this principle there are some curious points which we will now notice. A certain class of compositions, presenting circling lines, multitudinous divisions, and profusion of details, executed without reference to the human scale, always imply somewhat larger proportions than those which are more simply treated, Fig. 100. Nevertheless,

every large composition need not be complicated, nor details multiplied in the same ratio as the former; on the

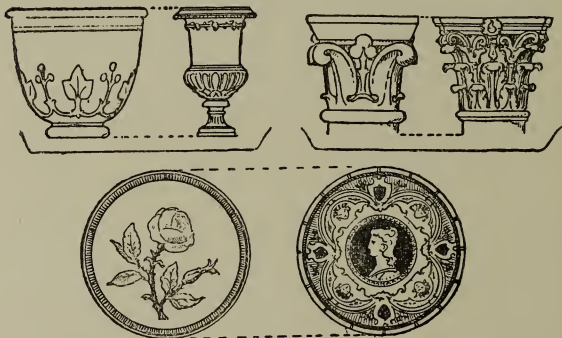


Fig. 100.—Contrasted Effect of Ornament on Objects not referable to Human Scale. 1105

contrary, this may be very simple and plain in character,



Fig. 101.—Simple Decoration.

provided the ornament is always proportioned to it, Fig. 101. Care should also be exercised to maintain the

relative proportions existing in nature, and which are essential in a picture, bas-relief, etc., where human figures, animal and floral forms, and inanimate objects must all be proportioned to one another.

When a composition is uniform, *i.e.* undivided, as a



Fig. 102.—Admissible Variety in Proportion.

single panel, the border of a plain surface, etc., unity of arrangement should be the rule; but if the work is divided into distinct parts, such as a frieze, decorated shutters, vases of multiform belts, a tripartite panel, medallion, and the like, the proportion may vary for each of them, Fig. 102. Similar variety of arrangement

is of constant occurrence in most compositions presenting wide borders, Fig. 41.

The principle of complexity may also exist with objects formed of various materials, such as bronze, ivory, and wood, all of which may be of different size ;

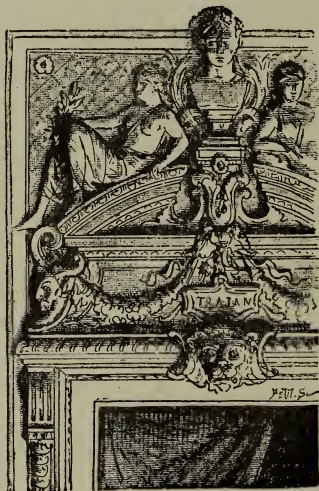


Fig. 103.—Relative Proportions of truncated and whole Figures.

but the ornament of works of one or two colours only should be subdued and far less elaborate than that of multi-coloured compositions ; truncated subjects also, such as busts, thermæ, lion muzzles, bull and chimæras' heads, masks, and the like, either carved or painted,

should not be given the same measure as whole figures or flowers of natural growth introduced into the same work (Fig. 103).

In order to secure clearness and harmony for the whole composition, small objects should receive simple treatment, and relative complexity reserved for larger details; in other words, simplicity of ornament should accompany diminutive forms, so as to avoid puerile minutiae or a confused and blurred aspect.

Exceptions are made for a certain class of decorative



Figs. 104, 105, 106.—*Simple Symbolic Ornament.*

elements introduced as accessories in a composition; thus the sun, the moon, the stars, prows, masts, as well as guns figuring in military trophies, are generally much reduced as compared to anchors, pullies, harpoons, and rigging with which they are associated, and which retain their natural proportions, whilst no difference is made between the size of fortified towers and simple martlets. The reason for this arbitrary difference is two-fold, and doubtless first arose from the impossibility of giving them all a like degree in the same work, and also from their

symbolic character, which allows the greatest freedom of treatment, fully exemplified in old Bibles and missals (Figs. 104, 105, 106).

Enlargement may also be resorted to, but for reasons of another kind: thus, as the ornament of minute objects would often entail great difficulties of fabrication, certain details are enlarged to make the subject clear. This is seen in numbers of ancient coins, exhibiting proportionally much larger dimensions than the human form, Fig. 107. But such emblems should always be isolated



Fig. 107.—*Enlarged Subject.*

and at some distance from the figures, for if they come in contact their dimensions would be incongruous. The ancients carried this license very far in their glyptics, where human heads are kept larger than is legitimate, so as to make the features more distinct. In like manner, but

from mere adulatory reasons, the principal characters of decorative compositions have been purposely given larger proportions than those with whom they are associated. This is well exemplified in Assyrian and Egyptian bas-reliefs, portions of which are in the British Museum, in which Sennacherib, Ramses, or Seti tower far above the grandees by whom they are surrounded. With the Greeks this is also observable, although in a less degree; thus, in the Laocoon and the Niobe groups, the father and mother respectively are invested with gigantic statures; in the latter case, Niobe is not

only taller than the tallest of her sons, but also taller than the long-bearded and well-proportioned tutor. There is no doubt that this mode has the advantage of securing both clearness of aspect and monumental outline so essential in decorative compositions.

More examples might be adduced, but these will suffice to illustrate the principle, and to show the direction in which the student can open out for himself new fields for observation; whether in Pagan or early Christian work, notably Byzantine, or in sculpture, bas-reliefs, painting, coins, and, in fact, throughout the whole range of art production. We do not mean to imply that similar license should be maintained in its integrity; it was not only justifiable but right in the early stages of art. But as with civilisation so with art also: as it progresses and rises higher, the laws governing its production become more stringent and severe, so that the artist should strive more and more to clothe his pictorial conceptions with a truthful and harmonious reflex of the manifestation observed in nature and around him, basing his mode of action upon a superabundance of exemplars both in the past and the present day.

Reduction is sometimes applied to secondary details to gauge the proportion of the subject. The size of a large, single figure, for example, may be indicated by its accessories, which should be minute, clear, and well defined. It was in obedience to this principle that Pheidias represented the whole conflict between the Centaurs and the Lapithæ round the sole of the sandals of his colossal statue of Pallas-Athene.

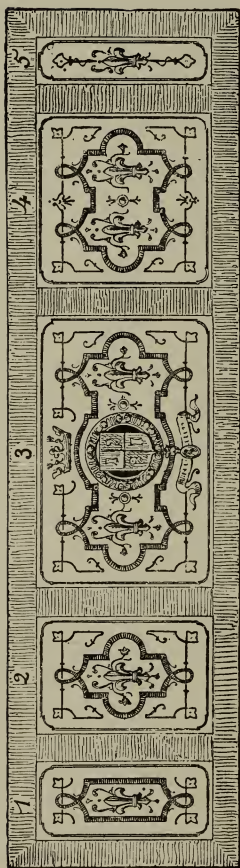


Fig. 108.—Proportional Ornament in Panels of different Dimensions.

It may be interesting to note that no decorative subject can be *reduced* or *enlarged* in notable proportions, without part of its character being destroyed; hence, the minute details of statues and other art-objects, reduced by mechanical means, become effaced and of no effect when enlarged; whilst the reverse takes place when summary details are elongated, resulting in lifeless and common expression.

To make our meaning somewhat clearer, we will suppose that we are going to decorate a large room with a series of panels, no matter whether mosaic, painted, or carved, all of the *same height* but of *different width*, Fig. 108. The first thing to consider is the nature of

the room, and being satisfied that the ornament of the panels, to be in harmony with it, must be uniform in character, we select No. 2 of the series, which from its medium size will best serve as a type and adapt itself almost anywhere. The ornament consists of two half-circles and a similar number of nodules, the centre being occupied with a fleur-de-lis and a ribbon knot.

The next thing is to find out how to place this design in the other panels without destroying the character and harmony of the composition. For example, let us select Panel 1: we at once see that the arrangement we have chosen as a type cannot very well fit the space allotted to it, and that it would appear, moreover, out of place and infringe upon the sides of the background. We may not reduce it, for that would alter its proportions; but if we maintain the characteristic details, such as the ribbon, fleur-de-lis, and nodules, in their integrity, we may suppress the circles, and then the design will fit the frame.

We now pass on to No. 4, where the design, being too large for the ground, leaves the sides bare; but as we may not alter its proportion, we are only left the choice of repeating the design, adding a detail for the centre.

Next comes No. 3, the largest of all, where the preceding device, although very much developed, is insufficient to fill up the surface; hence a special arrangement which shall unite the two devices and maintain the nature of the subject becomes necessary. To this may be added some interesting details; for example, a label, crown, and ribbon knot.

We have one more panel, No. 5, which, owing to its

narrow dimensions, will require greater subtlety of arrangement in order to preserve harmony of proportion, as here the type-device cannot possibly fit the space even if reduced to the simple expression of No. 1. To leave it alone would be one way of solving the difficulty, and not a bad way either, small surfaces being often left bare to set off enriched ones; but in this case a similar treatment might argue poverty of invention; we proceed, therefore, by still greater simplification of type-device,



Fig. 109.—Proportional Ornament on Panels of Different Dimensions.

and succeed in preserving to this Liliputian panel some reflex of the unit.

In principle, abstract subjects should receive very simple treatment, whilst floral, animal, and especially the human form, require greater subtlety of arrangement when introduced in a composition. Thus, if a series of panels of different size were to be decorated with wreaths, brackets, masks, leafage, etc., the form could not well be too simple, and by adopting the same method as before would result in Fig. 109. But if analogy both of dimension and relief in the details, analogy of space division and identical

disposition of the subjects were presented in a series of panels of equal size, then greater freedom would be allowed in the form of ornament, Fig. 110. Great care must be exercised too, in reducing the human figure, so as not to give it a cramped position ; hence, if the space is too small for the whole form, a bust or cameo might

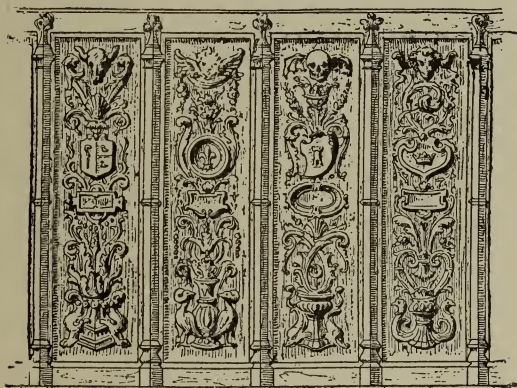


Fig. 110.—Different Forms applied to Panels of same Size.

be substituted with advantage. In cases, however, where it is necessary to maintain the whole, a youth or a child may be thrown in, whose proportion being the same as would be given to an adult in that position will indicate enlarged scale ; whilst a bird may be replaced by a butterfly, or a simple gnat, thus securing proportion and satisfactory aspect for the whole work.

Conformably to the principle of unity of proportion, it is self-evident that the same ornament must not be applied to borders of *different width* forming part of the same composition; nevertheless, without altering the nature of the ornament, some details might be omitted or super-added, resulting in agreeable effect, Fig. 111; in which the upper designs, while suited to the widths represented, would have a bad effect if reduced to suit the widths of the lower designs. For equilateral, triangular, ovoid, or conical forms, gradually fining into a point, the details



Fig. 111.—*Proportion of Ornament to Width.*

should be proportionate to the general outline; *i.e.* simplified from the base to the top, Fig. 113. The Greeks and Græco-Romans are our masters in the art of proportioning their ornament to the size of their vases; the neck exhibiting very delicate foliated scrolls, repeated with adjunctions on the body; the chief characteristics of the ornament being maintained throughout, Fig. 112. This important principle is too often neglected in architecture, and conspicuous by its absence in all art industries. Thus, we daily see different mouldings applied



Fig. 112.—Proportion of Ornament to Vase.

on members of the same furniture; and different pro-

portion given to the various pieces of a breakfast or dinner service; whilst a little care could so easily remedy such unpleasing faults. In like manner, the earrings, necklace, brooch, or bracelet of a set must have identical details, which may be enriched with additional designs, but without altering their dimensions.

To sum up, if the student will adhere to the rules laid

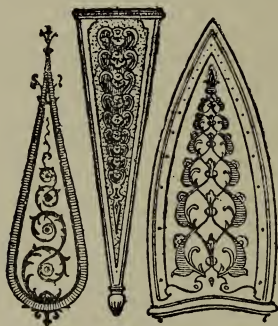


Fig. 113.—Proportion of Ornament to General Outline.

down in this chapter, he will secure that good aspect and harmony so essential in decorative composition.

VII.—VARIATION AND REPETITION.

IF we could take up successively the details of a composition, we should find that the principle advocated in the chapters treating of proportion, profile, and outline, are applicable to details presenting characteristic forms. We will limit ourselves, however, to the consideration of the

laws governing them, and notably in what degree repetition or variation is desirable in a given composition.

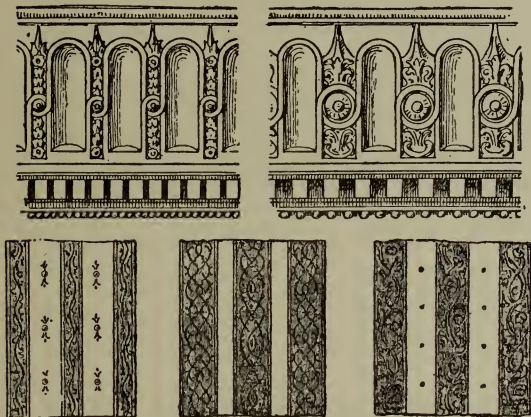


Fig. 114.—Repeated Ornament: Artistic and Inartistic Arrangements.

Ornament repeated at similar distances is set off and emphasized by intervening spaces differing in size from

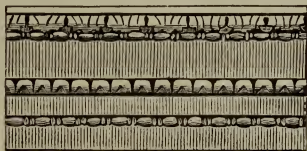


Fig. 115.—Alternation of Fillets of different Character.

it as much as possible. Sometimes richness of effect is obtained by diversified forms of ornament in juxtaposition ;

such as Greek and Roman modillions and dentels, of far better aspect than Byzantine forms distributed at long intervals, Fig. 114 ; sometimes by alternating enriched fillets

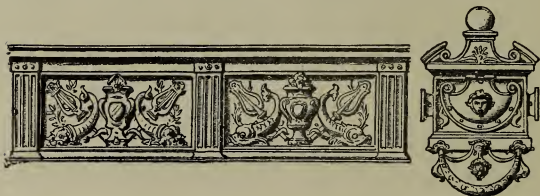


Fig. 116.—Inartistic Decoration : Analogy of Details.

with plain, Fig. 115. But no matter how complete the scheme of ornament the artist selects he must keep well in view the important fact that primary subjects should be

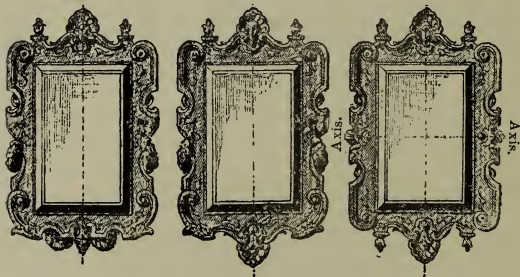


Fig. 117.—Panels of One and of Two Centres.

brought out, and their characteristic features emphasized so as to render similarity or analogy of aspect in details of different nature, even at a distance, impossible, Fig. 116.

Panels of one centre or vertical line should not have ornament repeated in an upward and transverse direction, but such ornament would be legitimate in panels of two centres, Fig. 117.

Upward and symmetrical ornament can only be



Fig. 118.—*Improper Repetition of Ornament.*

applied on a rounded form, when this is likewise symmetrical, *i.e.* presents a similar surface; whilst identical detail should not be placed in works of different form and modelling, such as the centre and



Fig. 119.—*Artistic Repetition of Ornament.*

border of a plate, the neck and body of a vase, the frame and handle of a mirror, the foot and back of an arm-chair, etc., Fig. 118; but repetition would be right on the parts of the same surface; for example,

a plate-border, the neck, body, or foot of vessels, and also on a certain class of symmetrical forms of vertical direction, Fig. 119.

If, however, the composition afforded isolated objects, an ewer and its basin, for example, or detached pieces of the same set, they should be united by repetition of one or more designs; as in this case, similar repetition would in no wise be opposed to the principle we advocate. False analogies have, moreover, this disadvantage, that they reveal poverty of imagination, and result in monotony

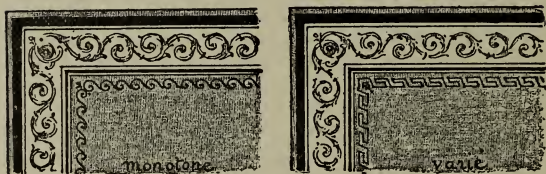


Fig. 120.—*Contrast of Monotonous and Varied Decoration.*

Such would be a decorative panel where classical scrolls and strapwork, differing somewhat in detail, but exhibiting uniformity of aspect, should be repeated throughout, Fig. 120. And here, we may warn the student to guard against the abuse of *volute terminals* on trusses, capitals, and the like, which he will, unfortunately, too often see around him. A volute or spiral is a decorative element at once elegant and easily manufactured, but it fails in its purpose if employed without discrimination.

The grave misapprehension of ill-understood analogies is frequently met with in monumental façades, the

cabinets of the Renaissance and those of the Middle Ages affording unequal parts ; where caryatides, chimeras, and saints of almost identical position are superimposed with utter disregard as to their unfitness and incongruity.

The necessity of variation is even felt throughout the same detail not requiring continuous and uniform size, hence the *outline* of wreaths, scrolls, ribbon-knots, and the like should be as varied as possible, Fig. 121, in which the



Fig. 121.—Examples of the Effect of good Variation in Outline.

designs B are heavy and unpleasing, compared with the designs A, albeit their proportion is the same. This principle of variation and repetition is applicable to reliefs ; thus in details of different nature, *true* or *coloured* relief found in sculpture and painting should follow the inflections of outlines, and by orderly distribution of salient points *coloured expression* would be secured, well seen in A, Fig. 121. We feel that this principle was fully



kept in view in the art of the Renaissance, exhibiting scrolls, ribbons, wreaths, clustered fruit and foliage; as well as figures, palms, escutcheons, etc., often of exceeding beauty and richness of effect; subdued parts being contrasted by forms standing out in bold relief (Fig. 122).

Repetition is of frequent occurrence in nature; for example, in the ring of petals in the primrose, the anemone, the buttercups, and a host more; and variation may be observed in the transition of form in the leaves of many plants, such as the columbine, the fern, etc.; whilst contrast both of form and colour may be witnessed in the unfolding of the horse-chestnut bud, in the scarlet and white camellias with their green glossy leaves, in the yellow stamens of the red japonica, the scarlet

Fig. 122.—Renaissance Relief.

berries and green leaves of the holly—and indeed throughout the whole of nature.



Fig. 123.—Example of good Early Gothic Work.

Many late Roman and Byzantine bas-reliefs present scrolls, floral, animal and human forms, often of excellent

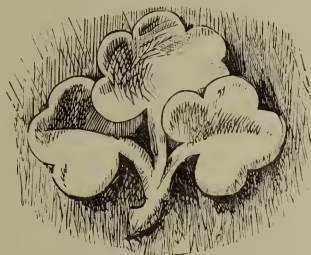


Fig. 124.—Debased Gothic.

execution, but they fail to interest us, owing to their sameness and want of contrast (see *ante*, Fig. 60). The truth of this principle may be illustrated by the treatment

foliage has received at various epochs: thus the leaf of



Figs. 125, 126.—*Contrasted Decoration, and Romanesque Capital.*

the maple divided in bold masses is exceedingly satisfac-



Fig. 127.—*Gothic Ornament.*

factory when viewed in English Decorated architecture,



Fig. 128.—*Contrasted Decoration.*

where its rendering is marked by truthfulness and tender-

ness; whilst on the buildings of the debased Gothic style of architecture the gouge or chisel marks too often remind

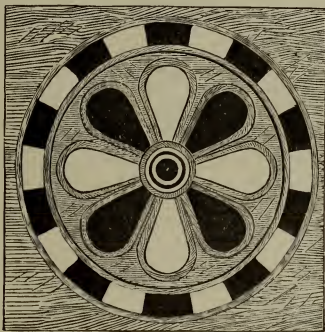


Fig. 129.—Contrasted Decoration.

us, if that were necessary, of its laboured and unnatural appearance, Figs. 123, 124.

“Contrast,” says a great authority, “is as necessary for effect in form, quantity of detail, and the position of lines, as it is in colour; this is well exemplified in Fig. 125,

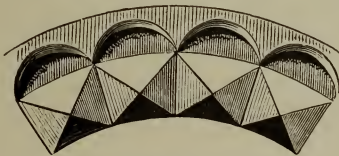


Fig. 130.—Contrasted Decoration.

wherein contrast is produced not only by reversing the unit, but emphasized by variation of colour.”

The form of the acanthus, met with throughout the monuments of antiquity, the deeply indented leaves of the parsley, those of the fig and oak trees, etc., are



Fig. 131.—Ornament not Flexible in Outline.

allowed their varied and rich outline and due regard for natural growth, at the hands of mediæval artists; that this is not the case with Byzantine, Romanesque, or

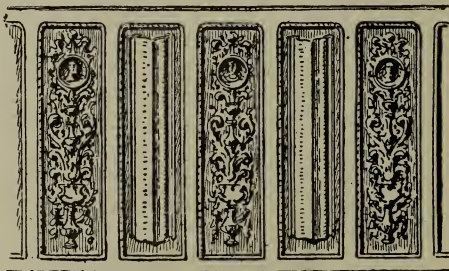


Fig. 132.—Ornament not Flexible in Outline.

English Norman work, the student can see for himself if he will compare Fig. 126, a foliate capital of Romanesque character, with Fig. 127, from a Gothic church.

The naturally flexible outlines of flowers should be carefully maintained, as nothing more obnoxious can well be imagined than when their mode of treatment is stiff, uniform, and rigid, Figs. 131 and 132. Artists and skilful sculptors have at all times felt the value of contrast, and by a just distribution of contrast, repetition, and variation, have secured warm and diversified aspect, Figs. 128, 129, 130.

Exception should be made for flat foliates, interlacing and the like, where equality of outline must be followed

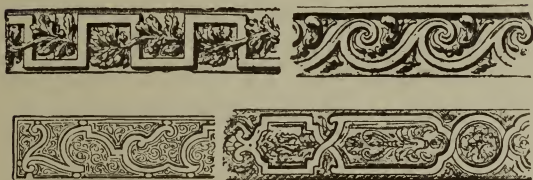


Fig. 133.—Ornament in which Equal Outline is given Equal Relief.

by equality of relief; this mode when juxtaposed with prominent and modelled subjects is pleasing and satisfactory, Fig. 133. On the other hand, the calm and dignified expression of the human figure met with on the monuments of the Egyptians, and which never altered during the whole course of their art history, was imposed upon them by a powerful priesthood. Did we not know that such laws were less stringent with the Babylonians, the nature of their bas-reliefs would alone enlighten us.

With the former the difficulty of working hard mate-

rials, such as granite, may have had some influence in bringing about reliefs so low as to appear almost flat, Fig. 134.

This mode of treatment was reproduced in France by

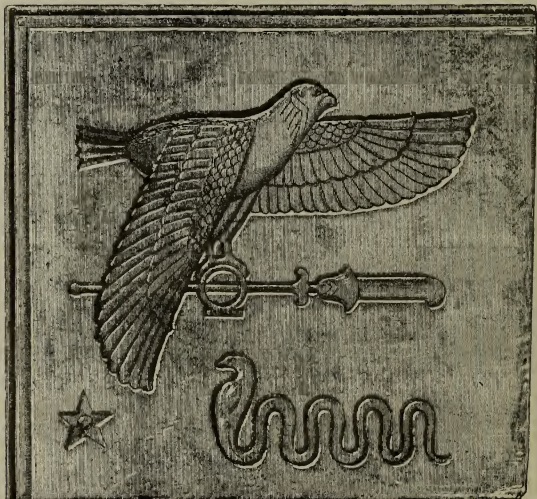


Fig. 134.—Egyptian Bas-relief.

Goujon and his school ; whilst in England Flaxman and others, by reverting to earlier and purer methods, did much to bring discredit and contempt on the Rocaille style, which had originated with France, and thence taken strong foothold everywhere.

There is another class of relief which may be achieved by the application of almost flat ornament on to a raised ground. The light falling on the space seems suddenly to wake up the uneven portions, which reflect back all the prismatic colours with truly gorgeous effect. This peculiar relief is first met with on Byzantine work, and requires great subtlety and refinement in its elaboration, Fig. 135.



Fig. 135.—Byzantine Relief Ornament.

We see it also on the armoury, the gold and bronze work of the Chinese, in the *repoussé* brass-work of the Persians executed under the influence of Hindu art, as well as in the Arabic and Renaissance fabrications, wherein the highly polished portions of the raised form are dotted on the surface of the work with marvellous effect. The value of contrast finds good illustration in Fig. 136, from which

it may be deduced that a shield with a plain, flat surface, but furnished with central boss and some reliefs sprinkled on the border, will be more pleasing than one overloaded with bas-reliefs, allegorical figures, scrolls, masks and

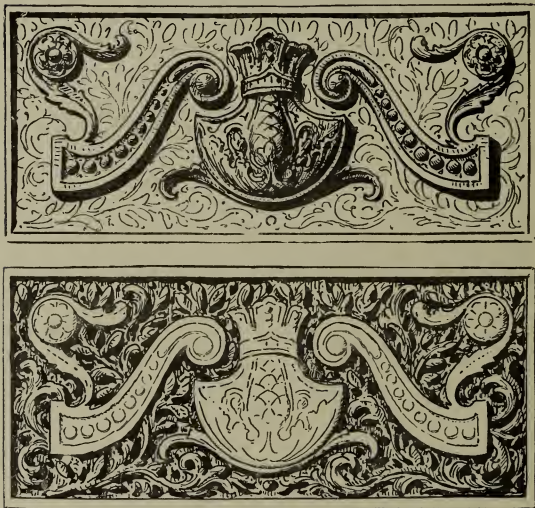


Fig. 136.—Contrasted Effect of Sparing and Excessive Relief.

trophies of equal richness of detail throughout. Many of the most famous works of Bellini and his school positively lose in effect by the excessive richness of their ornamentation. This error of judgment was not committed by his fellow countryman Ghiberti in the friezes on



137.—*Moorish Interlaced Design.*

the doors of the Baptistery in Florence, nor on those of the Baptistery of St. Mark, in Venice, by Sansovino. Casts of these remarkable gates may be seen in the South Kensington Museum. If we except details of the highest quality, Lombard fabrication of the same period will not bear comparison with that of the Tuscan and Venetian schools.

Ornament is said to have *value of colour* when it is marked by complexity, brilliancy, and movement, which may be obtained by opposing monochrome and subdued parts to multicoloured and shaded designs, Fig. 138; in which the design to the left is a Perso-Arabic, and that to the right a Moorish example. This important feature



Fig. 138.—Ornament possessing *Value of Colour*.

is of easy application on small surfaces; large works, however, will tax the powers, the knowledge, and the subtlety of arrangement of the artist to the utmost.

The form of ornament of the Arabs and Moors (Alhambra) affords systems of interlacing lines exceedingly rich and beautiful, yet governed by a principle of order banishing any idea of confusion. This is achieved by superimposing on flat intricate scroll designs a diversified and somewhat raised string pattern; over this is placed a plain broad ribbon device, of lighter colour than the rest, to regulate the composition, and by judicious sprinkling of glittering buttons, scarlet buds,

pomegranate blossoms and escutcheons, they succeed in producing work of eminent art quality, Figs. 137, 139.

The same may be said of the floral Hindu-Persian art,



Fig. 139.—Rich Interlaced Design.

and of that of the Renaissance; whilst the intricate and exuberant ornament of Indian work, as well as that of late or debased Gothic of all countries, exhibit an excess of richness and want of repose which are somewhat objectionable.

As we have before observed, the law of contrast is applicable to *plain* and *enriched* mouldings of every form

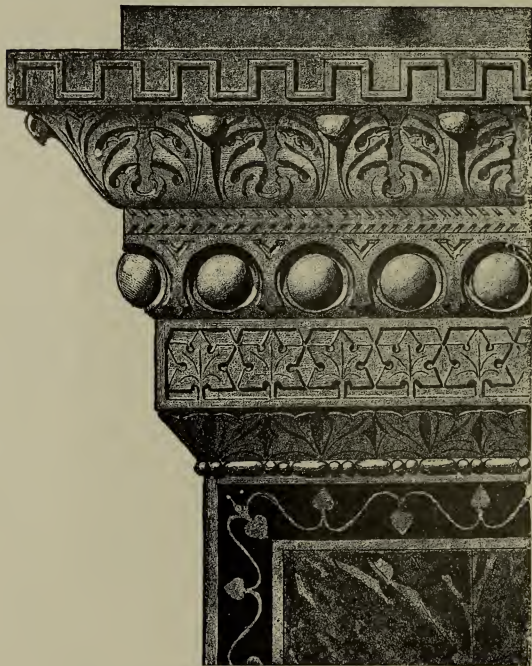


Fig. 140.—Byzantine Sunk and Relief Decoration.

and design. In exceedingly complicated work this is obtained by opposing enriched patterns of different forms,

frequently met with in compositions of the Byzantine period, in which ornament is slightly sunk, flat or in bold relief, Fig. 140. The Greeks felt the want of contrast when they combined the acanthus and water-lily leaf, the former having its foliage much divided, whilst the latter is without sections. Adherence to this principle is apparent in the art-work of modern times ;



Fig. 141.—*Linear, Flat, and Modelled Ornament.*

notably in the style known as *Louis Seize*, and in the productions of Flaxman, Wedgwood, the brothers Adams, and others.

VIII.—RELATION OF DESIGNS TO EACH OTHER.

BEFORE we take up the relation of the various forms of ornament when juxtaposed to one another, it will not be out of place to define the floriated expressions by which they are known, Fig. 141.

Ornament is called *linear* when it is expressed by simple lines without breadth A ; *flat*, when indicated by parallel lines dividing a plain surface, B ; and *modelled*,

when possessed of *real* or floriated relief of diversified direction, c. These various renderings may be united in the same detail.

The vast stores of nature, as an inexhaustible mine, are open to the artist, and from the floral and vegetable kingdoms, as also from inorganic objects, he can devise forms of exceeding beauty. Thus, besides leaves, flowers, buds, fruits and seeds, many of which are of rare excellence as ornamental forms, yielding innumerable modifications of outline, there are objects of less interest, such as thread, string, iron bars flattened or twisted, ribbons, bands, strips of paper, etc., and the complete scheme of modelled ornament, carrying the mind over a boundless array of products differing in texture or material. Attentive observation of the natural growth of floral and vegetable forms will prove a better guide in regulating the relation that one design should bear to another, than when this is achieved by mere "inward consciousness."

Ornament may be accomplished: (1) by curvilinear and radiating lines, divided by variously formed spaces, united either by intervening or by tangential lines, with or without interlacing; (2) and (3) by crossings and intersections.

In the first case, the ornament should be composed of lines flatly treated, as best adapted to the material it recalls; whilst with crossing of lines and tangential junctions, narrow bands and ribbons will be appropriate, Fig. 142. The junction of tangential lines should be straight and well defined *over* the curvilinear form, and carried

beyond it ; whilst slanting junctions should be discarded as exceedingly obnoxious. Bare angles are frequently furnished with small details, and crossing of bands, either simulating tying of knots, loops, links, or any forms



Fig. 142.—Examples of True and False Junctions.

of binding ; they are valuable as investing the ornament with an appearance of solidity, reassuring both to the mind and eye, Fig. 143. With regard to the love of all early nations for interlacing and woven involution of lines, Mr. Ruskin says : “ It is not often that any idea of utility



Fig. 143.—Good and Bad Tangential Functions.

has power to enhance the true impression of beauty ; but it is possible that the enormous importance of the art of weaving to mankind gives interest if not actual attractiveness, to any type or image of the invention to which we

owe our comfort and our pride. But the more powerful reason lies in the joy that the human mind has in contemplating any kind of maze or entanglement, so long as it can discern through its confusion any guiding clue or connecting plan.



Fig. 144.—Scotch Brooch with Interlaced Decoration.

“We are never tired of contemplating this woven interlacing, and that, in some degree, is the secret of the sublime pleasure which we have in watching the branches of the trees, the intertwining of the grass, the tracery of the higher clouds, the fine meshes of the

robe, the braiding of the hair, and the various glitterings of the linked net or wreathed chain. Byzantine ornamentation, like that of almost all nations in a state of progress, is full of this kind of work: but it occurs most conspicuously, though most simply, in the minute traceries which surround their most solid capitals; sometimes in a reticulated veil, sometimes resembling a basket, on the edges of which are perched birds and other animals."

Interlacing of lines and narrow bands is of constant occurrence in early Irish, Runic, and Anglo-Saxon art, both in illumination and carving. Ancient Irish and Runic crosses and brooches show beautiful examples of interlaced patterns of exquisite make; sometimes the pattern is formed by mere lines, alternated with snakes and other animals, entwined into endless variety. This is well seen in our Fig. 144, showing an ancient Scotch dagger, which forms part of one of the "Hunstertan brooches," with inscriptions in Runic or Icelandic characters; as well as in Fig. 145, a magnificent specimen from an ancient Irish brooch.

Interlacing patterns are frequently met with in classic and mediæval work of all countries, and examples of Assyrian and Roman mosaic pavements may be studied in the British Museum. The plait or *patera* and netting patterns are also found throughout the whole range of art.

Fig. 146 is a series of border arrangements with a band more or less diversified, showing appropriate junctions A, B, C, and obnoxious at D, because the latter junction is only effected at one point. When this is the case, the

design may be maintained by carrying it under or over

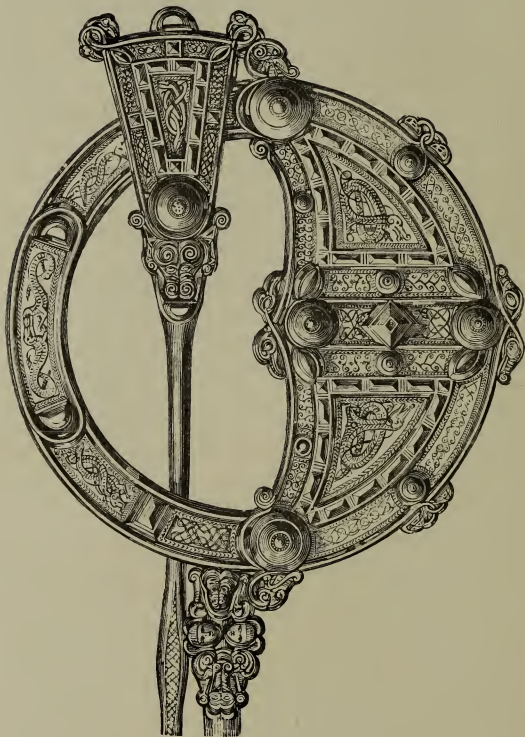


Fig. 145.—Irish Brooch with Interlaced Decoration.

the border or frame, Fig. 147. Nevertheless, if the nature

of the ornament should recall neither strip or ribbon, but was destined to figure in mosaic, marquetry or flooring,

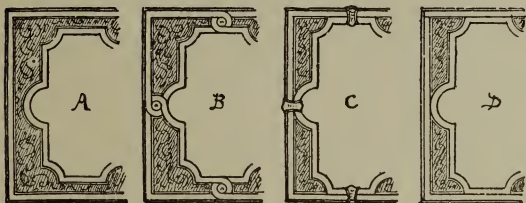


Fig. 146.—Border Arrangements showing True and False Functions of Bands.

tangential junctions might be resorted to with good effect, as owing to the flat position of the form a gliding appearance could not be apprehended.

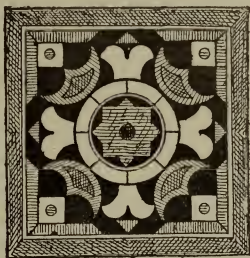


Fig. 147.—Byzantine Inlaid Design.

The respective effects of confused and clearly defined interlacing will be seen in Fig. 148, in which the supe-

riority of the ornament to the left over that to the right will be readily apparent.

In order to avoid acute contacts, false tangential junctions, confused angles, and uncertain lengths of line, the crossing of one form over another should follow a direction resembling as near as possible a straight angle, Fig. 148.

Interlacing bands also should imitate hair, cord or



Fig. 148.—*Contrasted Effect of Well-defined and of Confused Interlacing.*

any other plaiting ; *i.e.* should alternately pass over and under the bands in contact.

This principle is applicable in a less degree to verdure, ornament and arabesques ; to modelled details, such as plaited ribbons, flowing drapery, palms, wreaths, labels, armour, instruments, and even animal and human forms, when associated in the same composition, Fig. 150. Figures 149, 151, 152, 153, are good examples of Oriental interlacing work, and though rigidly conventional in their treatment, yet show their indebtedness to nature for their effect.



Fig. 149.—Oriental Interlaced Ornament.

We will close this chapter with two more examples of

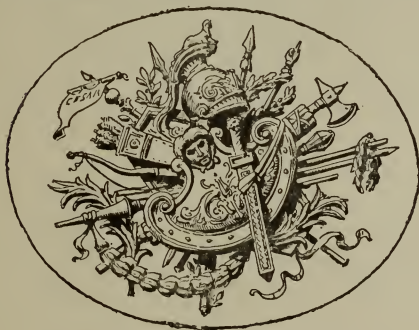


Fig. 150.—Complex Modelled Ornament.

Arabic and Moorish elaborate interlacing, with vivid

L

x Balance this up - steady it - by getting
 + down sword line + getting perhaps
 + down line corresponding in tail of cross

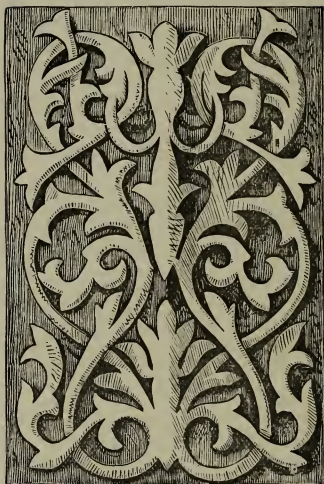


Fig. 151.—Oriental Interlaced Ornament.

colouring, red, blue, black and gold, profusely orna-



Fig. 152.—Moorish Interlaced Ornament.

mented, yet appearing to rise naturally from the circumstances of the case, Fig. 153, 154.

IX.—ASPECT OF ORNAMENT.

PURELY imaginative compositions must yet contain some degree of probability in their general appearance, so as to be acceptable to reason. Thus the wingless figures met with on mural and Pompeian vase paintings look so natural and well equipoised, that we do not stop to inquire by what agency they are able



Fig. 153.—Arabic Interlaced Ornament.

to keep their elevated attitude in defiance of the law of equilibrium. The same cannot be said of isolated Byzantine figures, resting generally on some ground, or what is meant to be such, or leaning on one side; because they assume an attitude of repose wholly at variance with their real position. The flimsiest support will satisfy the eye, provided it carries some kind of reality with it; either a ground line, or a rectangular

slab, of frequent employment in early paintings, Fig. 155. Further to illustrate this principle we give Fig. 156, representing an Italian decorative plate with a central subject of *vertical direction*. Round the border are disposed small figures (*putti*) supporting wreaths and labels. As the whole subject is treated conventionally and painted in one or two subdued colours, the abnormal position of the figures, some of them head down-



Fig. 154.—Moorish Interlaced Ornament.

wards, and also the wrong way upwards of wreaths, are not particularly noticeable ; but were they to receive excessive modelling and natural colour, they would at once become incongruous and exceedingly disagreeable.*

We will yet take another subject, this time a panel created after the second method, exhibiting a central

* “ Ornament on plates, around a cup or vase,” says Dr. Dresser, “ should be such as will not suffer by perspective.”

figure which stands on a bracket with lateral foliated consoles and colonnettes supporting a dais, Fig. 157. No one will seek to know the degree of solidity or the materials of this composition; we readily admit its fanciful character, yet we feel that it might easily become improb-



Fig. 155.—Early Figure Paintings.

able if a faint echo of reality were not provided in the general balance and proportion of the design.

Should bracket *a*, for example, be too small, the attitude of the figure would immediately seem constrained and unnatural; the case would hardly be improved by making bracket *b* larger than proportion will justify. On the other hand, if the consoles *c* were small relatively

to the colonnettes, they would appear to bend under the weight they support; inversely, their heaviness and exaggerated solidity *d*, in proportion to the object superimposed, would be made apparent. If the junction of the colonnettes be tangential to the volutes and carried on in the lower portion by a recall, as in our figure, the sense of balance is excellent and satisfactory; but if the



Fig. 156.—Italian Decorative Plate.

bisections were effected on the slope of the volutes, all impression of equilibrium would at once be destroyed. In like manner, perfect balance must exist between the small columns and the dais; this should be neither too large, *e*, nor too scanty, *f*, in relation to the figure, or the eye will not be satisfied.

The measure, therefore, to be maintained, and the

thickness which should be accorded to details, is a question not so easily answered, and may be affected by the material at command or other considerations.

Disproportions

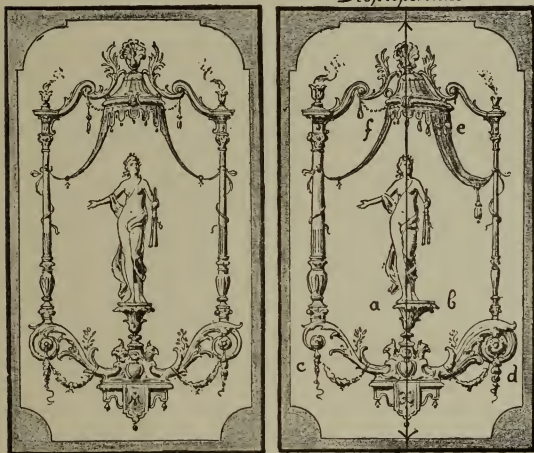


Fig. 157.—Examples of Proportion and Disproportion.

An intimate knowledge of nature will alone enable the student to produce brilliant and ideal works, which shall yet be attuned to the dictates of common-sense.

X.—PRINCIPLES COMMON TO ORNAMENT.

SPACE is a feature in ornament which deserves our attention, all the more that little or no heed has been bestowed upon it, albeit on its surface are disposed the decorative designs belonging to the second and third methods.

After the artist has supplied the primary and secondary forms and lines, he should think of the masses of the ornamental scheme and the greater or less *magnitude* or *prominent strength of colour*, together with the relative *lightness* or *depth* the tint must occupy in relation to the space ; whether the former should be dark on a light ground, or, inversely, the space toned down and sombre in colour ; for upon the adoption of one of these methods much of the aspect of the composition will depend.

We mentioned before that a *black* detail on a white ground will appear smaller than a *white* one on *black* ground. This curious optic effect is well understood in commerce, and large firms, desirous to introduce variety in their wall-papers, keep in their employ an artist, entrusted with the modification of colours of the same plate ; but, however skilful such adaptations may be, it cannot be expected that all the details will harmonize with the general tone of the composition.

The finest pottery of the Persians is of a white ground, with designs in azure blue, and inscriptions in black letters, freely drawn and standing out in bold relief. The designs on early Greek vases were traced in black on a light red or white surface ; and a large proportion of silver and ivory work inlaid with niello, the *sgraffitti* or black

engraving on white glaze of the sixteenth century, were due to the same principle. Every one who reads knows how much clearer are black letters on white ground than white letters would be on a black surface. As springing from this principle, light-coloured ornament applied to a dark ground is apt to become confused, as part is absorbed, especially when the design is very fine and delicate.

Perhaps the finest specimens of damascening in silver applied to black metal, mother-of-pearl inlay on ebony, etc., are to be found in India at the present time. The outline of Italian majolica of this period was likewise traced in black or zaffer blue, shaded off with the latter colour, whilst the flesh of the human figure is left white; or the borders are ornamented with grotesque designs, reserved in white on a dark blue ground, and central subjects painted in a similar tone; thus testifying to the appreciation felt by nationalities the most diverse, to the value of contrasting one colour with another. The British and South Kensington Museums contain very fine collections of these various works.

Dark borders should be selected in preference to light ones; especially when the general tone of the masses is pale in colour; but when both ground and designs are dark the border should be light and narrow, so as not to interfere with the subject which it surrounds. Sometimes sharp contrast between ornament and space is the chief characteristic of the composition; in that case, care must be exercised to throw in some details, which will add refinement and softness to the outline of the subject. A simple black *fillet*, which should follow a large border of

similar tint, surrounding a white space, will be found valuable in bringing about the desired effect. Many Faenza *tazze* also afford dark blue ground, on which are etched white figures, their outline softened by flowing ribbons, leafage, and ringlets about neck and face, Fig. 158. Similarly, in early paintings light-tinted figures on dark space are given an accompaniment of sceptre, birds,



Fig. 158.—Ornament contrasted with Space.

foliage, drapery, and outstretched wings, &c., in order to relieve length and rigidity of outline, Figs. 159 and 155.

The builders of the Middle Ages were no less clever in providing their parapets, spandrels, etc., with pierced panelling, ornamented with trefoils, quartrefoils, or with foliated tracery; thus lightening their edifices and also investing them with perfection of form, by a



Fig. 159.—Ornament contrasted with Space.

subtle combination of straight, curved and diagonal lines.

The student need hardly be told where to look for examples of work of this period; England is richer than any other country in beautiful churches and houses, abounding in rich and admirable ornament, to which access, in most instances, is free and easy. In a different sense, and from a wider artistic standpoint, the Albert Hall is well worthy his attentive consideration, as the outcome of intimate knowledge and illustration of all styles, both

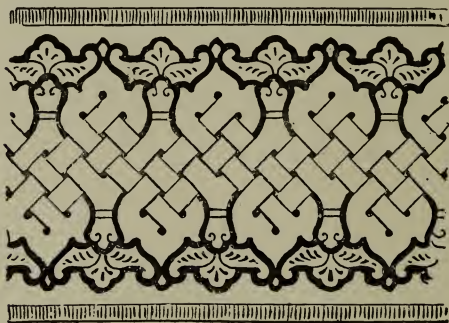


Fig. 160.—Ornament in imitation of Matting.

ancient and mediæval, but yet displaying the vigorous individuality of its creator.

Let us now examine the relative extent of space and ornament, and note the various aspects produced according as the former predominates over the latter, or inversely the decorated parts over plain ones.

When plain surfaces predominate over decorated ones, the result is a refined delicate ornament, such as is seen on

Greek and Pompeian vases, in the arabesques and nielling of Italian and French Renaissance, in much of the work of Louis XVI., Wedgwood, Adams, and others. This, however, may easily become mere fining and finiking of lines.



Fig. 161.—Interlaced Celtic Ornament.

When form predominates over space, the ornament is ample and rich in its effect, but if indulged in it is apt to end in heaviness and confusion of aspect ; exemplified in late Roman sculpture, in Celtic interlacing, in Arabic,



Figs. 162, 163.—Space identical with Ornament.

Moorish, and Hindu ornament, as well as in the florid English style of architecture and much of the present French art, Fig. 161.

There is a class of ornament, however, made to

simulate matting, under which the ground entirely disappears, except at the crossings, Fig. 160.

In Fig. 5 we give a very pleasing decorative design, produced by a judicious apportionment of space and ornament.

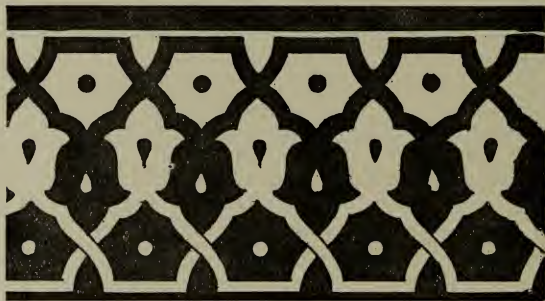


Fig. 164.—Space identical with Ornament.

A judicious alternation of space and ornament is in some cases resorted to from motives of expediency in the production of articles of industry; illustrated in 162, where ornament and ground are similar in form, variation being obtained in the colouring of white against black.

It need hardly be observed that similar combination

Arabic (symmetrical).

Chinese (unsymmetrical).

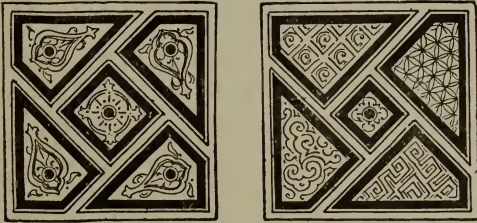


Fig. 165.—Symmetrical and Unsymmetrical Ornament.



Fig. 166.—Ornament of Twofold Effect.

is produced at very little expenditure of labour. Some-

times, as in damask fabrics, the form is so arranged as to call the attention over the whole surface ; this expression, in a higher order of ornament, is very much to be sought after by the student.

The ground has not at all times been considered as the visible surface, resulting from intervals left by ornament ; Byzantine artists were the first who used space as

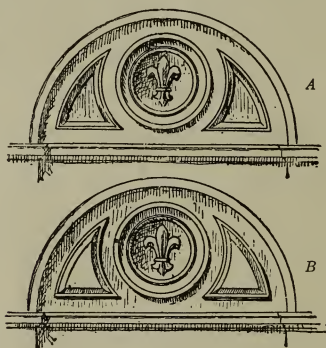


Fig. 167.—Corner Ornament parallel to Outline.

an element of decoration by giving it ornamental outline. This was followed by Arab and Italian artists in their compositions, in which ornament and space are identical in form, and present admirable gradations of colour, resulting in rich and pleasing effects, Fig. 163.

The Moors, Arabs, Italians, and Hindus more especially, delight in this class of forms, known as “counter-change ;” the pavements and mural ornamentation of

Italian churches, the mosques of Constantinople, of Cairo, and the court of the Alhambra at the Crystal



Fig. 168.—Composition depending for its effect on subtle arrangement of Colours.

Palace, etc., afford many beautiful examples. some of great richness and intricacy of design, Fig. 164.

What we have said of primary divisions will apply in part to corners, where an easy and simple mode should be the rule. There are two ways of treating the corner.

In the one case, the angle is treated as such, Fig. 166; in the other the ornament is parallel to the outline, exemplified in Fig. 167, showing two panels of the sixteenth century with circular medallions and spandrels. These should be slightly sunk so as to disappear in the general mass *a*, for if it is in *relief b*, its angular form of outline will be emphasized in a very objectionable manner.

The marked difference between a symmetrical and unsymmetrical construction is well seen in the Arabic and Chinese panels, Fig 165. These might be multiplied almost *ad infinitum*, but they will suffice to illustrate our meaning, and lead the student to seek fresh fields for himself.

There is also a peculiar kind of decorative ornament first met with in Græco-Roman paintings, reproduced by the Italian Renaissance, and again taken up towards the end of last century. In this class of composition, a floral ornament simulating an inner border forms part of the composition, which is kept low in tone, brilliant colouring being reserved for the ground found towards the real border. Similar arrangement will require much subtlety, and tax the resources of the artist to the utmost, in order to ensure satisfactory aspect to the parts immediately bordering the ground. Its want of truth, however, renders it at best but an ingenious expedient. (Fig. 168.)

CHAPTER IV.

FURNITURE.

THE relation of form and detail to each other which has been noticed in another place, naturally leads up to the principle of ornament as applied to objects of common use. With the Greeks, beautiful and good were synonymous terms; we would alter it thus: a thing to be beautiful must also be useful—a principle we have endeavoured to set forth in our earlier chapters. Hence glasses and silver cups should have their parts proportioned and such as can be easily handled. If the stem is too short the equilibrium of the vessel will suffer; if too long, it will be equally obnoxious and wearisome of aspect. Care, too, should be taken to make the lip sufficiently prominent, for if this is neglected the liquid will run down the sides of the vessel and soil the adjacent objects, such as table-cloth, carpet, etc. This principle is well observed in ecclesiastical silver pieces, notably chalices, exhibiting stems furnished with a round form upon which the hand may rest. Many Persian bottles also present a similar feature. (Fig. 169.)

In like manner, it should not be forgotten that a lamp is a receptacle intended to hold inflammable matter; its foot or base, therefore, should be sufficiently large not to be easily upset; while its mechanism must be good

and conveniently placed. Similarly, the probable destination of an object should be remembered in its selection ; and if the choice lies between two lamps, for instance, one very beautiful and rare, but likely to prove useless, whilst the plain and more common one promises well, preference should be given to the latter.

Vessels exhibiting angular handles, which were much in vogue towards the end of the eighteenth century



Fig. 169.—Chalice and Bottle of good design.

and the beginning of this, are obnoxious in every respect, Fig. 170. That forms may be beautiful, simple, and commodious is well seen in Fig. 171.

Jugs, flagons, and ewers should be provided with handles which will not hurt the hand that grasps them, and mouths that will pour out well. A small projection for the palm and thumb, such as is seen on German *Seidels*, is valuable.

Many Renaissance productions, and a number of those of the seventeenth century, present handles which should not be reproduced ; for although great freedom of treatment is permissible, if not legitimate, in show pieces, this must not be so exaggerated as to destroy completely its primary character. If a vase is disfigured past recognition,



Figs. 170, 171.—Good-shaped and Ill-shaped Handles compared.

why not have some other form that will do as well? It follows therefore that when a particular shape has been selected, it should be pursued honestly and consistently throughout. The same may be said of decorative plates, and the difficulties of working the hollow and border, when a simpler and easier mode can be found in a medallion.

On the other hand, the shape and fittings of a piece of furniture should indicate its probable use; for if it looks one thing while its purpose is another, the construction is sure to be weak or incorrect in some points, so that the sham wardrobe, chest of drawers, or whatever else it may be, will not work well.

And in what terms shall we stigmatise those uncomfortable chairs and arm-chairs, exhibiting backs with such deep carving as to bruise the unfortunate person rash enough to lean against them? Or the jewels, necklaces, bracelets, and earrings with multitudinous points, catching everywhere, tearing everything, and last, not least, hurting the wearer?

The various parts of a clock, too, should be proportioned to each other; the pedestal should be of a size that will set off the statuette it supports, and so on with the other portions of the timepiece. The mistaken idea that a white surface is not artistic accounts, doubtless, for the dark-faced clocks we so often see. This is followed up by another wrong notion, that you cannot have too much of a good thing; and so ornament of the most elaborate and intricate description entirely covers the surface, accompanied by characters that are unknown to all but a few antiquarians. After hopelessly trying to find a clue to the hieroglyphics, we inwardly wish for the homely clocks of our young days. They could boast, it is true, no artistic value, but they had the merit of answering the purpose for which they were made, and their black legible Roman characters could be read by everybody.

OTHER POINTS COMMON TO ORNAMENT.

WHILE these have already been treated in another part of this work, we wish here to add a few remarks on some minor points, especially the human figure, which formed so distinguishing a feature of the art-subjects of the Renaissance, under Louis XIV. and the Tudors. The artists of this period, proud of their knowledge, were eager to display it in its most exalted expression, and introduced the human form wherever a place could be found for it, forgetting that the mind soon wearies of contemplating a series of parts which require a certain effort to be read and all of equal importance, and seeks unconsciously a quiet corner, where to rest awhile, that it may go back with renewed zest to the more complicated portions.

This exuberance of the human form, already apparent in the Loggie of Raphael * as well as in the art-products of Michelangelo, runs riot with the brothers Carracci and Benvenuto Cellini, whilst the school of Fontainebleau was marked by the same error of judgment. Similarly, the Hindus have made undue use of the animal and human form in the façades of their pagodas, exhibiting moreover a perfect maze of patterns of extraordinary intricacy; whilst in late Gothic architecture multitudinous figures look out from every nook and corner.

Ornament should be conceived in view of the position

* Raphael was a great painter, but not a decorator, who treated walls and ceilings as he would canvas. The same holds good with painters of this and later periods.

it will ultimately occupy. Thus a panel representing Agriculture, for example, should not be constructed on the same lines as one portraying the Arts and Sciences. In the former, a few wild flowers, some clustering hops and ears of corn, accompanied by rustic implements, will sufficiently indicate its character ; but a more



Fig. 172.—Faulty Decoration : Main subject not predominant.

elaborate and subtle treatment will be appropriate for the latter.

It may be laid down as a principle, that in a symmetrical composition, the most prominent surface, or that which is on a level with the eye, should be occupied by the primary subject. This, to a certain extent, is applicable to unsymmetrical compositions, for if the form is placed in a corner much of its interest will be

destroyed. This principle is well illustrated in "Annunciation," and other pictures of like description, wherein the angel or secondary subject, at the other side of the canvas, helps to set off and concentrate the attention on the principal figure. But a frieze surrounding a vase may have its parts repeated, for here the eye will naturally follow the ornament over the whole surface.

Further, it is self-evident that the main subject must receive more care than the accessories surrounding it; hence the mode of treatment exemplified in Fig. 172 is to be discarded as violating the principles we have set forth.

PART II.—PRACTICE.

MATERIALS USED IN DECORATION.

THE first part of this work deals with the theoretical side of decorative art; it remains now to note the various materials used in ornament, as well as the effect they produce, according as this or that material is selected.

This important principle, touched upon before, must be studied both in relation to a just conception of the object to be represented, as well as the nature of the material at command, since this will greatly modify the form, whilst neglect of its potentialities will result in disaster. Consequently the artist should guard against painfully imitating the effect that strictly belongs to another material, and which will not have the same fitness out of its natural place. Such would be a gate, Fig. 173, where, from a mistaken notion of unity, all sense of fitness would be discarded by carrying the design on stone and wood alike; seen in A, corrected in B. These remarks particularly apply to designers, who, to considerations of usefulness, of expediency, and of the limitations imposed upon them by the material at hand,

must also aim at clothing their ideas with interest and with as much grace as these restrictions will permit, so as

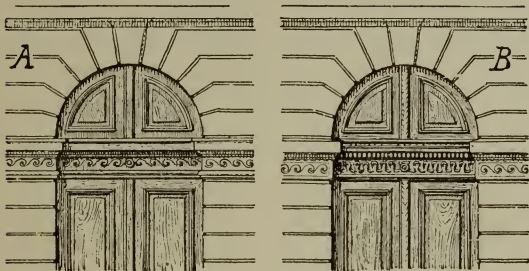


Fig. 173.—Suitable and Unsuitable Ornamentation.

to raise their compositions above the level of mere industrial products.

I.—STONE, MARBLE, GRANITE, AND PORPHYRY.

CALCAREOUS stone, either hard or soft, is one of the materials most generally used in buildings, fountains, columns and balustrades, in monumental vases and finials of every kind. It is first cut into large blocks by heavy blows dealt with a pickaxe and sledge-hammer, and then hollowed out with gentle blows so as not to split the mass, and cut, moulded, carved, and polished off on the surface with a chisel, etc.

Hard stone and marble admit of higher polish and more elaborate work than softer and looser materials. With patience and gentle well-regulated blows the

chisel is driven by a light hammer, producing the broader or heavier lines ; with the borer, deep or shallow

channels are cut, as well as minute and delicate patterns of great beauty, the effect of which may be enhanced by opposing highly polished or filled parts to dull or plain ones.



*Fig. 174.—Stone Vase :
Appropriate design.*

The greater or less degree of ornamentation must be regulated by the material employed and the destination of the art object. Thus, in a vase of solid stone intended as a finial in a building of a certain importance, and which we know will be viewed from afar, refinement of make would be superfluous and lost to the sight ; hence if the general effect of outline and the details are pleasing and appropriate to the material, the artist will have done

enough to satisfy decorative requirements, Fig. 174. In this spirit were conceived the stone monuments of the

sixteenth and seventeenth centuries, and if their outward aspect is somewhat heavy, it undoubtedly harmonizes better with stone than the sunk delicate details of the perforated pinnacles of the fifteenth and sixteenth



Fig. 175.—Marble Vase : Good Roman design.

centuries ; for their ruinous state is sufficient proof of the absurdity of fine work in such a position.

Roman marble work is marked by breadth of expression and make which are exceedingly satisfactory. This is very well seen in their funeral urns, bowls, monumental vases,

Fig. 175, tripods, Fig. 176, and in the fine decorative candelabra which have come down to us.

The traditions of imperial Rome were continued in

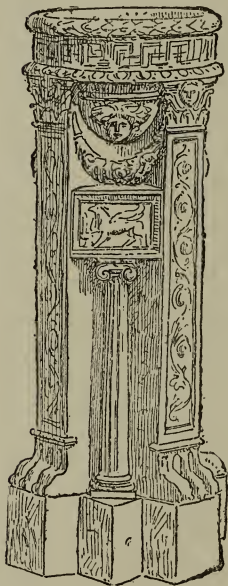


Fig 176.—Marble Tripod:
Good Roman design.

Italy throughout the Middle Ages and the Renaissance. Italian work of this period is distinguished by exquisite taste and consummate knowledge of the capabilities of the material used, a principle which is not observable in the art productions of Italians of the present day, in which minute and over-delicate execution are the chief characteristics.

In window-frames care must be exercised to make the openings sufficiently large to let in as much light as possible, leaving plain and strong bands uncut to support the work. This is well seen in the Roman *claustra*, in the Byzantine, Arabic, and especially Moor-

ish window-frames, in which pretty patterns are carved in soft plaster easy of repair, and often of marvellously delicate workmanship, Fig. 177.

Hard stones, such as granite, porphyry, and jasper, require much patient labour, and details can hardly be obtained away from the mass. Fine-grained marble is not found in Egypt, therefore hard and soft calcareous stone, or the harder porphyry, basalt, and especially granite, were used in her monumental works. The rigid and almost flat treatment of most Egyptian compositions is accounted for by the constant danger the artist was in of shivering the work he wished to represent to pieces. Consequently, statues were planned so as to run the least risk of such catastrophe; their pose was generally quiet, the hair fast to the shoulders, the arms and legs reserved, Fig. 178, or they disappear in the drapery, whilst a pilaster-like stand supports the whole, yielding a convenient space for inscriptions. Similar supports are not used in bronze statuettes, for they are of easier execution and in no danger of breakage. As might be expected, their modelling is finer and their treatment marked by a degree of freedom never found in those worked in hard stone.

Roman imitations of Egyptian monumental works are incongruous, like all imitations, lacking the very quali-

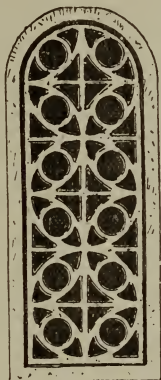


Fig. 177.—Arabic Window-frame.

ties which it was intended to secure, and which make the monoliths of Egypt so imposing and satisfactory.



Fig. 178.—Egyptian Statue.

II.—WOOD, EBONY, AND IVORY.

It is almost superfluous to mention that woods are of very different quality and usefulness. In Europe the oak has the pre-eminence, for if it cannot be cut in every direction, nor so finely carved as walnut, it is of much longer duration, and the only one susceptible of being worked into scrolls, foliates, floral and animal

forms, whilst retaining its beautiful massive aspect. These characteristics of the oak were fully recognised by the Romans, with whom one of its names, *robur*, was synonymous with strength, hardness, power, and endurance.

In England oak panelling, oak flooring, oak chests, and other pieces of furniture were extensively used during the thirteenth and fourteenth centuries, when a large proportion of this country was covered with oak forests. Of the old pieces still preserved, a chest of the time of King John may be mentioned. We have some curious records of the endurance of particular wood structures. The cedar roof of the famous temple of Diana of Ephesus was intact at the end of four centuries. The roof beams of the temple of Apollo at Utica were of cedar, and still sound after twelve hundred years. The beautiful open roof of Westminster Hall, said to be of chestnut, dates from Richard II., and is still in good preservation.

Woods have not escaped the whims of fashion ; thus in olden times our furniture was chiefly made of oak and walnut, which were replaced by mahogany, and in rare instances by satin-wood, ebony, rosewood, etc. ; now the list of ornamental woods is much enlarged, including grey maple, Hungarian yew, olive, ash, Amboyna, and many more.

Fine woods, used in the form of veneer, *i.e.* cut in very thin sheets, such as the citron, apple, cherry, plum, holly, beef-wood, Coromandel, locust-tree, zebra, yacca, Palmyra, nutmeg-wood, bamboo, cane, Japanese woods, etc.,

owing to their costliness are only found in the houses of the wealthy.

Among the common tools used for working woods are the plane, beam-compass, the gouge and chisel; to these may be added the lathe, which seems to have been employed from the earliest times, and is met with in Egypt, in Babylonia and other countries.

Our space forbids us to do more than merely draw attention to the various modes by which beams, wood furniture, panelling, and the like are pieced together.

Framing joints, used in the construction of roofs and centres of bridges, are always made on the principle of a *tenon* and *mortise*; that is, one of the pieces to be joined is cut away so as to have a small projection called tenon, and a cavity called mortise formed in the other piece to receive this tenon. Sometimes tenons are cut very short, so as not to pass through the other piece; when, to prevent lateral displacement, notably when the pressure is oblique, a bolt or iron strap is commonly used.

Timbers may be connected longitudinally by simply bringing the two pieces end to end, placing a short piece on each side, and bolting through these short pieces and the main beams. But when nicety is required beams are connected lengthwise by *scarfing*, *i.e.* by cutting away half of the substance of each portion or beam, and the cut portions being brought together, are fastened by screws, bolts, straps or wedges. In constructing the scarf, care must be exercised to provide for the strain the piece is likely to sustain, either lengthwise or in a transverse direction.

Beams may be connected by *cogging*, when a shallow notch is cut out of the under surface of the beam, and a similar notch is cut in the wall-plate to receive the beam.

Two pieces are said to be *lapped* together when a

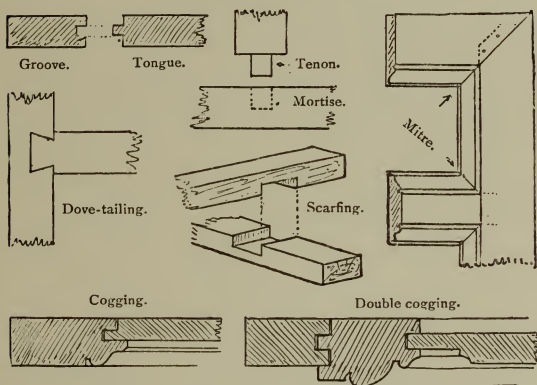


Fig. 179.—Examples of Framing Joints.

portion of each is cut away and the cut surfaces brought together.

Joints of every description, whether brought to bear on beams, the framework of doors, lintels, sills, cabinets, caskets, and the like, must be thoroughly mastered if it is wished to produce artistic furniture, Fig. 179.

Carved and foliated subjects should be well kept together by judicious ties, and the finer parts framed within the more solid ones.

The artist should not strive to invest wood fabrication with unduly fine and delicate details, which would be inappropriate, and at best can only please the ignorant; nor should the general structure of any composition disappear under elaborate and rich ornament.

In the case of pattern-making and cabinet-work, it is most important that the wood should be well seasoned and of proper dimensions, so as to avoid warping, splitting, and twisting, which will ruin the best work. This is well exemplified in the large panels of the seventeenth and eighteenth centuries, where unsightly splits and shrinkage are of frequent occurrence. These defects are never met with in mediæval work.

As a rule, bolts, straps, screws, and the like should be employed in preference to glue; which looks better at first, but is apt to get out of order in a damp climate, causing the pieces to fall out. The Egyptians, with true instinct, used wooden joints in their furniture; seen in a chair preserved in the Louvre collection, a cast of which is in the South Kensington Museum. The British Museum is rich in specimens of Egyptian chairs; while on the monuments of Khorsabad, unearthed by Sir H. Layard, "we find representations of chairs supported by animals and by human figures, sometimes prisoners. In this they resemble the arm-chairs of Egypt, but seem to have been more massive."

Veneering, or the art of covering a cheap wood with thin slices of a more ornamental character, laid down with care, must be referred back to the time of Pliny. It was doubtless suggested by the extravagant prices that

were given for solid tables of precious woods. Cicero is said to have paid £9,000 for one table only.

Northern countries are very rich in wood-panelling and wainscoting of all kinds, but the most beautiful examples met with in various collections are of Eastern origin. The South Kensington Museum possesses



Fig. 180.—Arabic Frame-work.

numerous specimens, distinguished by delicate carving and *seeming* intricacy in the arrangement of their geometrical designs of excellent effect. Our cut shows an Arabic frame-work, where woods prepared by the saw or turned in the lathe have been employed, Fig. 180.

To give an account, however summary, of the elaborate and extensive wood-work of the fifteenth century, such

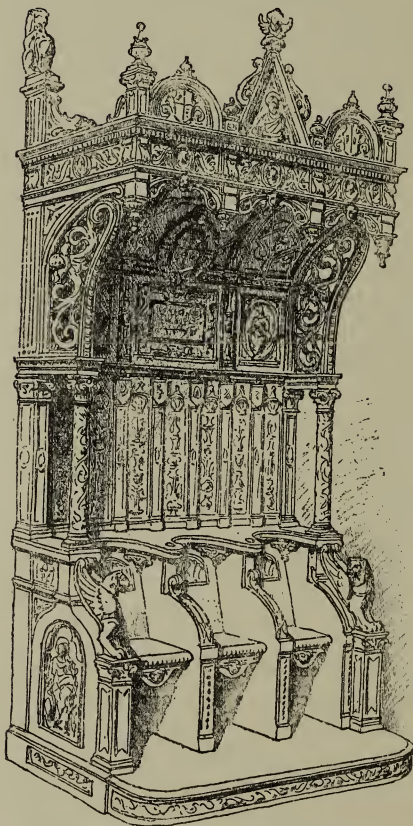


Fig. 181.—Sixteenth Century Wood-work.

as screens, posts covered with tracery, coffers, stall-ends in churches, cupboards, and benches in baronial halls, with which England abounds, and which were designed after patterns of window tracery, would carry us far beyond our scope ; and for the same reason we cannot do more than mention the remarkable wood furniture and panelling of the Renaissance, conspicuous for bold design and rich ornamentation, Fig. 181. In Fig. 182, representing an Italian bellows, this boldness and surety of hand are well exemplified.

The form of ornament on wood and other furniture on the continent during the seventeenth and eighteenth centuries, are the egg and tongue and other classical mouldings. In England, a more natural style was introduced by Grinling Gibbons. This artist carved birds, foliage, flowers, fruit, pieces of drapery, and so on, with rare truth and excellence of execution. Examples of his work may be seen over the altar of St. James's Church, as well as in the choir of St. Paul's Cathedral and in many private houses.



*Fig. 182.—Bellows :
Italian design.*

Ivory inlay, almost restricted in Europe at the present time to small fancy objects and show pieces, was extensively used by artists of the Renaissance. It is still in great demand in the East, where it originated.

Mouldings, foliage, scrolls, wreaths, pendants, and fruit, either carved separately and fixed with glue or clamps to cabinets, sideboards, wardrobes, and other pieces of furniture, admit of the smallest pieces of wood being used, and great division of labour; but they are not satisfactory, despite undoubted qualities of execution, for they cannot be made to spring from nor harmonize with the background to which they are applied. The moderate cost of such work alone accounts for its extensive use; and that is the best that can be urged in its favour.

Long pieces of wood should be held together by numerous joints, whilst the outline of turned wood should not be made to look like thin metal. Admirable examples of the artistic furniture of all countries, from the earliest times, may be seen in the collection at South Kensington, which should receive the studious attention of the artist.

III.—BRONZE, TIN, AND ELECTRO-BRONZE.

BRONZE is an admixture of copper mixed with small quantities of tin, zinc, and lead. We do not propose entering into the various methods practised by artists at different times for casting in bronze, but will confine

ourselves to the simple statement that after the metal has been duly mixed and fused in the furnace, and the requisite "conduits" have been formed, the glowing metal is slowly poured into the mould where it will receive its final shape. The polishing, chasing, filing, chiselling, punching, etc., which the work may require after removal from the mould should be done by the artist himself. That this was the usual practice of artists of the Renaissance is very apparent in their work.

Groups and complicated figures are cast separately and in different pieces, which are afterwards joined by soldering or dovetailing.

Works in high relief, such as the members of a figure, the handles of a vase, clock cases, and all important masses of ornament, are treated in the same manner.

And here we may note that machine stamping with a die is unduly practised in the manufacture of light brass fittings and ornaments of all kinds, which can only result in dry and rigid outlines, no matter how much care is afterwards lavished on the work to soften and polish its surface.

There is no doubt that the earlier method of working bronze into shape was by cold hammering and cutting, which in process of time was aided by heating. Admirable implements, both in make and beauty of form, are found in every collection, and belong to what has been called the Bronze Period. The best examples, perhaps, are those of Egyptian, Greek, and Etruscan origin.

Circular pieces, such as clock-wheels and the like,

requiring great nicety and precision of outline, are produced by means of a lathe ; with art objects, however, casting should be resorted to as more satisfactory.

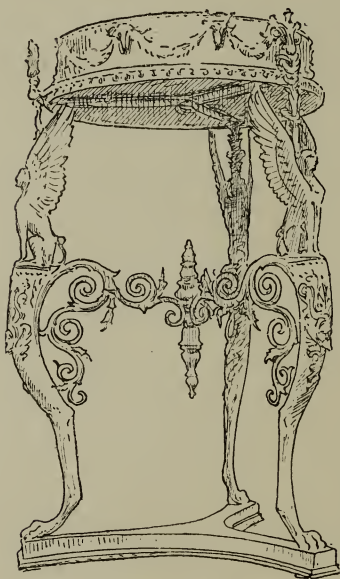


Fig. 183.—Bronze Tripod.



Fig. 184.—Bronze Lamp.

Bronze, owing to its suppleness and flexibility, may be sculptured into any degree of fineness and delicacy ; as will be observed by comparing the bronze tripod, Fig. 183, with the marble one, Fig. 176.

The abundant use of bronze for cast and beaten work in early times is placed beyond doubt by the numerous



Fig. 185.—Bronze Andiron.

examples that have been brought to light by excavations. The large pieces mentioned in ancient records have not



Fig. 186.—Bronze Censer: Japanese Design.

been preserved, but the museums of most countries possess a wonderful variety of statuettes, lamps, Fig. 184, candelabra, tables, tripods, Fig. 183, etc.

The great sculptor, Pheidias, is supposed to have begun his artistic career as a worker in bronze; and some of his early productions were in that metal. The system of throwing the whole weight of a figure upon one foot, leaving the other detached from the base, by which a marvellous effect of lightness and elasticity is obtained, is ascribed to him. Such a conception could only originate with an artist who was familiar with the properties of metal.

The Middle Ages and the Renaissance have left us admirable bronze works, such as groups, figures, medallions, panelling, grating, andirons, Fig. 185, candelabra, etc., of perfect execution and finish; while the censers, Fig. 186, and vessels of Eastern nations are marvels of delicate tracery and richness of invention.

In Italy metal work never completely ceased, notwithstanding her troubles from within and from without, which turned her fair plains into a battle-field for the rest of Europe during a thousand years. The most important and early Christian work in bronze which has been preserved is the statue of St. Peter in the basilica of that name in Rome. Many interesting lamps of bronze, ornamented with Christian symbols, such as the Trinity, the Lamb, the Lion, the Fish, etc., are preserved in the collections of Italian cities, the British Museum, and other places. To name only the most remarkable works would not be possible in a book of this kind,

but the wonderful candlestick in the Duomo, at Milan, may be mentioned. In composition it is a mixture of Byzantine and Romanesque. Some of the groups and figures are treated with a freedom in advance of the period to which they are supposed to belong.

The Germans and Flemings have shown great skill in the casting of bronze. Important monuments of this



Fig. 187.—Bronze Work : Seventeenth Century.

metal are found throughout the churches of Flanders and Germany, such as door-handles, gratings, clock-cases, doors, crucifixes, figures, and shrines, ornamented with classic mouldings. The well-known shrine of St. Sebald, at Nuremberg, was executed between 1508 and 1519. A cast of this exquisite work is in the South Kensington Museum.

In England ornamental bronze came into use as early as the twelfth century and has extended to our own times, a revival having again taken place within the last few years.

Early English brass is formed of separate pieces shaped to the outline of the figure. Examples of comparatively modern bronze may be seen in the equestrian and standing figures erected in our public squares, some of which, however, are of very doubtful quality and more or less open to criticism.

Admirable bronze work was produced in France during the reigns of Louis XIV., Louis XV., and Louis XVI., the excellent modelling and the perfect technique of many of which are models for the student, Fig. 187. The bronze works of the brothers Keller, who flourished under Louis XIV., may be seen at Versailles and elsewhere.

It cannot be too often repeated that elaborate manipulation of flesh, bits of drapery, of hair, and the like, will not compensate for defects of casting, and should not be resorted to by the artist.

We have abundant proofs that tin was extensively used in the art work of mediæval times, and among the remarkable examples which have been preserved, the ewers and ornamental plates of Briot may be cited.

Tin is a flexible, soft, and ductile metal; but it does not admit of the fine chiselling which may be given to the various parts of a good and careful bronze casting. It is more appropriate to smooth surfaces, which may be relieved by judicious nielling or by a sunk design.

Patinas are green, red, brown, or blackish colours, acquired by a metal after long burial in the ground. They are extensively used by the Chinese and the Japanese in their bronzes, which, after many fruitless attempts, have been successfully imitated by French artists. Unfortunately, electro-bronze is apt to tarnish by exposure, so that its use must be restricted to interiors.

IV.—IRON.

WHEN iron leaves the foundry it is taken up by the artisan in the shape of bars, and is then placed on the



Fig. 188.—Examples of Forged Iron-work.

anvil and worked, with or without a drawing, into twists, scrolls, interlacing bands, and the like, Fig. 188.

In fine hammered and complicated work the various parts are wrought or beaten separately and welded or riveted to the stem. This was the method practised by artisans of olden times, and is still the prevailing rule of all good and ornamental English iron-work.

But when iron is thinned to extreme fineness, as is often the case with French ornament, the delicate forms are apt to break if welded to the stouter ones; they are,

therefore, soldered, pinned, riveted, or brazed on to the stems and scrolls, Fig. 189.

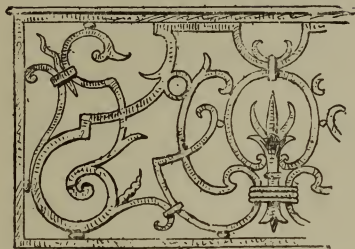


Fig. 189.—Iron-work united without Welding.



Fig. 190.—Three Stages of Hammered Iron-work.

The old artificers confined themselves to simple forms, such as were best suited to the material. In process of

time, however, cut, pierced, and chiselled iron-work came to be made. This was soon followed by the fine art of chasing in *repoussé*, Fig. 190.

Although iron is a hard metal it is very ductile, and may be hammered on the back, front, and side, and

twisted in all directions to form foliage, flowers, stems, labels, and even human forms, Fig. 191.

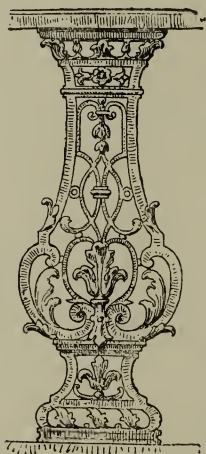


Fig. 191.—Hammered Iron-work.

Beautiful beaten and chiselled handles of swords, handles of daggers, railings, window-guards, doors, hinges, knockers, articles of furniture, and other decorative objects were executed during the whole of the Middle Ages. Several keys, knockers, and hinges, wrought with rare freedom and beauty of design, are still met with in England. Our illustration, Fig. 192, is a successful reproduction of hammered iron-work executed in

1251 for the chapel used by Edward I. The floriated hinges of this interesting door are fine examples of wrought iron-work. The next cut is an interesting example of old German work, Fig. 193.

Among the remarkable pieces of mediæval iron-work that have been preserved, the famous chair made

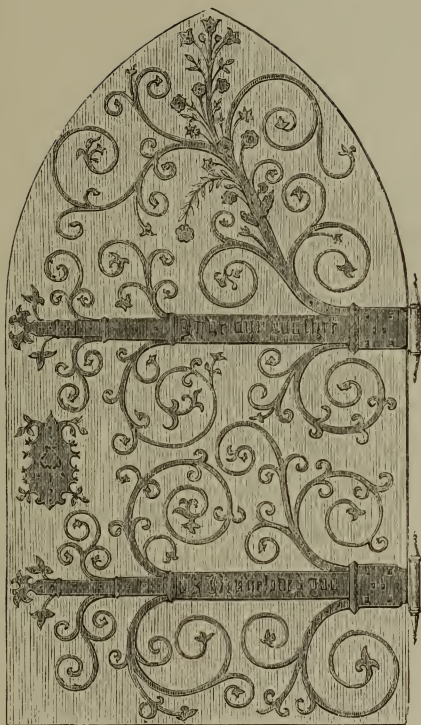


Fig. 192.—Hammered Iron-work

for Rudolf II., of Augsburg workmanship, and now the property of Lord Radnor, may be mentioned.

The South Kensington collection is rich in specimens of fine iron-work of all kinds, from the earliest periods of the art to the present day. The finest *repoussé* and chiselled work is found in arms and armour, amongst

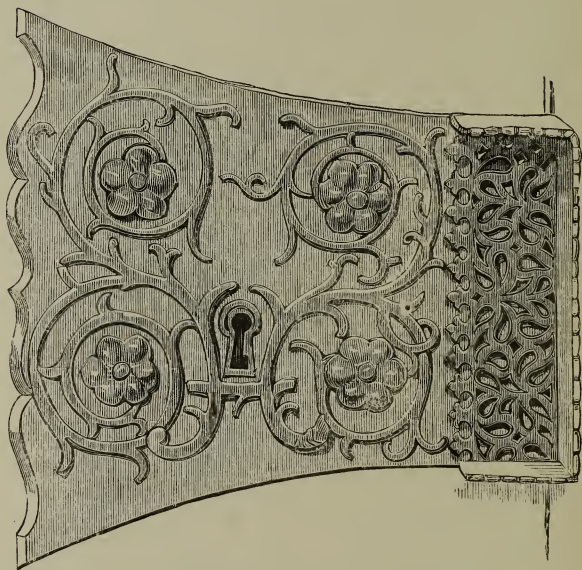


Fig. 193.—*Hammered Iron-work : Old German.*

which Oriental and Italian arms are perhaps the most interesting from an artistic standpoint. Many large works in iron were executed in the sixteenth and seventeenth centuries, such as the beautiful French gates of

the Apollo Gallery at the Louvre, and the screens of Hampton Court, now at South Kensington. The design and the execution of these screens are admirable. The ornamentation consists of the rose, the shamrock, the thistle, ferns, etc., executed with truthfulness and of marvellous effect.

This collection also contains balconies, window gratings (such as are used even at the present day in Spain, Italy, and all over the East), shrines, crosses, door-fittings, etc., some of the specimens dating as far back as 1015, and belonging respectively to Flanders, Germany, France, and in fact to all the civilised countries of the world.

Casting is admirably suited for large and solid work, and owing to its comparative cheapness has replaced wrought iron for common decorative purposes.

Unfortunately, under the erroneous notion of investing it with the appearance of hammered iron, it is frequently covered with elaborate ornamentation of inferior quality.

Among modern specimens may be mentioned the admirable metal-work of the Palace at Westminster, and a portion of a railing surrounding a tomb in Finchley cemetery, Fig. 194.

The only drawback to iron is its tendency to rust when exposed to the outer air. This may be obviated by applying several layers of paint to its surface, but the fine sharp outline of the work is thereby destroyed. The use of nickel is not open to this inconvenience; the high price, however, which has to be paid for it must restrict

its employment to small ornamental objects. The recent



Fig. 194.—English Iron-work.

system of applying a layer of copper to large works not requiring close inspection, as fountains and lamp-posts, for

example, has met with even less success than the old mode of painting.

We will conclude this chapter with a quotation from one who is entitled to speak on the relative merit of French and English beaten metal-work.

“The French exceed in taste and effect, but the English excel in hammered iron-work. The French make their design strong and effective, but the ornamentation, being of thin iron sheet, is light and elegant, but forms a separate part from the rest of the work, and must decay very soon. Another fault is, that being of thin iron, recourse must be had to riveting or brazing.

“But if iron-work is to last a long time it must be welded together or worked from the solid bar, then the leaves may be made sufficiently strong to last a number of years. A good design should allow of this being done, and I think in England good designs do so.”

Another artificer agrees that the English “mould better, and finish more completely, with the sole use of the hammer, but that the French make great use of files and other finishing tools.”

V.—BRASS, COPPER, LEAD, AND ZINC.

THE process of hammer-raising, of which mention has been made in our remarks on iron, is effected by a series of blows dealt regularly and evenly so as to keep the shape regular and all parts of equal thickness, care being taken to have the blank sheet of metal of exact size, so that none has to be cut off afterwards. The copper

moulds used for jellies, cakes, etc., afford a good example of high relief by hand hammering.

Copper and Latten (yellow brass) are often worked and raised by means of the planisher or by "spinning," *i.e.* moulded with copper burnishers while being turned in the lathe. This method is used alike by tinkers and brass artificers in the production of tin or copper vessels, metal plates, etc., and although it does not strictly belong to art-execution, it is frequently associated

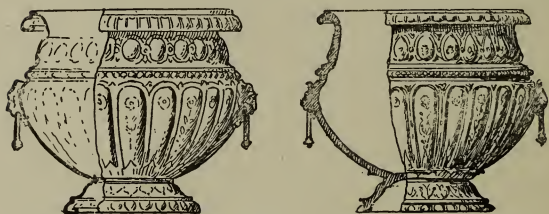


Fig. 195.—*Repoussé Brass-work.* Fig. 195a.—*Cast Brass-work.*

with it: for here, as with more delicate work, after the vessel is finished the rim, the fluting, and the like are added and touched up by the repairer. When all the corrections are made and the required effect produced, the surface is finished by chiselling or carving of the finer parts, such as flowers, foliage, and all the details requiring skilful execution. The work is completed by *matting* certain portions of the surface, some being left bright and others flat, or retiring, in order to produce texture or variety.

If the vessel is somewhat complicated, exhibiting handles, rings, stems, knobs, etc., such portions have to be raised separately and joined in their place by riveting or brazing.*

The difference between cast and wrought metal consists in this: that the former is generally thick, admitting of rich and elaborate ornamentation; whilst the thinness of the latter will only bear broad and simple designs, with retreating outlines, so as to avoid sharp and acute edges, well seen in Figs. 195, 195A, where the treatment is appropriate to the material employed and pleasing in its effect.

The use of copper was known to the early inhabitants of the countries in which the metal is found, and was fashioned into weapons, domestic utensils, etc. From

the East have come those shapely coffee-pots and ewers, nearly of pure copper, which are the delight of connoisseurs, Fig. 196.



Fig. 196.—Oriental

* Sometimes a wood or resin core is used for raising the metal.

The greater portion of the admirably wrought vessels for church use of the thirteenth, fourteenth, and fifteenth centuries, were of copper gilded with gold, as were those of the Renaissance, many of which are of great beauty of form and ornamentation; nor can it be said that the use of copper ever ceased. Its malleability is peculiarly adapted to the formation of objects of every variety and shape. Its use is seen in our boilers and refrigerating pans, in the sheets that protect the keel of our ships from barnacles and other insidious creatures, as well as in the production of smaller objects, such as stew and warming-pans, tea-urns, kettles, coinage, medals, etc.

Tin, or white lead, was known in remote times, and still retains its value in the industrial arts when combined with lead and copper. Lead, on account of its extreme ductility, has to be supported by iron or wooden braces; hence, redundant forms should be rejected in order to prevent awkward deformations.

Lead was extensively used during the Middle Ages, the Renaissance, Fig. 197, and even in our own day, in false roofs, finials, and the like. The fountains at Versailles are of lead partly fused and partly wrought, dating from the seventeenth and eighteenth centuries.

Electro and stamped work have dealt a severe blow to artistic metal productions. Many copies of beautiful designs are undoubtedly reproduced at a very moderate cost, and where a plain form only is required stamping is satisfactory enough; but when decorative ornament is introduced the mechanical appliances become apparent, for little or no variety of shape is to be looked for in the designs.

Skilful artisans, too, are becoming every day more scarce, and in a period of hurry, when everything is for mere show, the time cannot be far distant when the fine art of wrought metal will only be remembered as a tradition of the past, or at least for the appreciative few.

Zinc, being the least valuable of all metals, is not usually beaten or wrought, and, as it is rather brittle, its use should be restricted to objects of large dimensions. But its extreme malleability will always prevent its being extensively adopted in architectural work.

Imitation Paris bronze (cast and wrought zinc) is treated almost in the same manner as the nobler metal; but, however well moulded or cast, it does not admit of the same finish as bronze, and it is foolish to imagine that zinc statuettes, zinc flower-pots, zinc stands, and the like, can be decorated, treated with colour, or gilded and given the patinas of bronze in a satisfactory manner.

The piercing press does excellent service in the repro-



Fig. 197.—*Renaissance Finial.*

duction of a set design, but it is inapplicable to original art-work. For these recourse must be had to the fret and the ribbon saw, which combine the qualities of machine and hand-work to such a marvellous degree, that in another age the effect produced would have been attributed to a supernatural power.

The construction of a design pierced by mechanical means should not be the same on a dark as on a light ground, and when the scheme of the design alters the

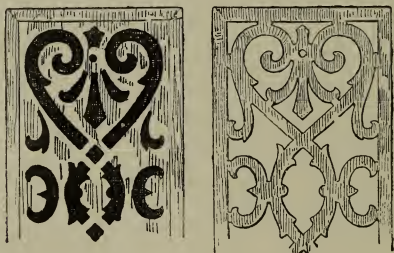


Fig. 198.—Pierced Work.

place of the joints, these must be made sufficiently strong to prevent the breaking or twisting of the blank piece, Fig. 198. In principle, curvilinear forms are better adapted to piercing with the fret-saw than straight lines, consequently tangent crossings and acute edges should be discarded. The fret-saw soon breaks or gets out of order; hence its application is expensive and confined to very thin sheets of iron, or to more ductile metals, such as bronze and zinc, which admit of elaborate designs.

Work done by means of these appliances is in every way more satisfactory than the *cast brass fittings* that were in vogue some years ago, the chief characteristic of which was inferior and wearisome uniformity of design, whereas the plain and pierced surfaces of this style form a pleasing contrast with the surrounding reliefs.

VI.—GOLD AND SILVER.

GOLD is distributed in many portions of the globe. It exists in England and Wales, but only in small quantities. Gold has been accepted by most nations as the embodiment of wealth, and its qualities can hardly be over-estimated. Few chemicals act on it, it does not tarnish or alter by melting and recasting, and the beauty and splendour of its colour have been universally felt; it is portable, and so ductile that it can be beaten out to almost the consistency of tissue paper. The art of beating out gold into thin leaves is not a modern invention; Pliny states that in his time "one ounce could be stretched out into seven hundred and fifty leaves four fingers square."

In order to enhance the natural glitter of gold and silver, artists, at a very early period, introduced precious stones, pearls, crystals, etc., into their work. The stones were not cut into facets as they are in the present day, but ground down with as much symmetry as their natural shape would allow.

Among the oldest examples of gold work none are so remarkable as the collection found in a tomb at Thebes,

including a gold dagger, a diadem, a square brooch set with coloured stones, a bracelet ornamented with raised figures, a boat of massive gold, etc. ; of about 1500 B.C.

We read that the temple of Belus, in Babylon, had a golden image of colossal size, and that the throne and table which stood in the porch were also of gold. It is probable that similar works were only plated on a wooden frame ; that this was the case with the statue of Pallas-Athene, by Pheidias, which stood in the Parthenon, we know from the testimony of Pausanias, who saw it in place. The Greek and Etruscan artists set great store on the colour of gold, which they were loth to hide with enamel ; hence specimens of this work are very scarce in our museums. Allusions to wrought and raised work abound in all classic writers ; the beautiful description of the shield of Achilles presented to Thetis by Vulcan, "the divine artificer," will be remembered by readers of Homer.

The "Treasure of Hildesheim," in the Berlin Museum, is one of the most important collections of Roman gold and silver handicraft. It consists of cups, vases, dishes, a tray, and other pieces for a dining-table, many of them of beautiful design and execution. It was unearthed in 1808.

Precious stones have been associated in all ages with the East. "From India," says Sir H. Layard, "precious stones were probably supplied to Babylon and Nineveh." The wealth of the jewelled gems, of the gold and silver, set forth in "The Thousand and One Nights," belonged to the East ; whence also the fleets of Solomon and

Hiram brought, amongst other rare things, "precious stones." "In Byzantium," says Labarte, "gold, silver, pearls, and precious stones were scattered about with a profusion which surpasses imagination."

The Middle Ages abound in work of silver and gold or copper gilt, both pierced, chased, enamelled, or set with precious stones, such as châsses, pyxes, book mountings, croziers, church and other plate, candlesticks, etc., characterised by profusion of ornament and skilful manipulation.

Among the most interesting examples of English work of this period may be mentioned the coronation spoon kept in the Tower, of the thirteenth century; the Ampulla, or dove, also used at the coronation, and probably a reproduction of an earlier piece; and last, not least, the beautiful Lynn Cup, cir. 1350, of silver gilt and translucent enamel, belonging to the corporation of that town.

With the Renaissance, in Italy, in France, in Germany, and in England, metal works admirable in every respect were produced, exhibiting an infinite variety of designs of every size and magnificence. Many painters, sculptors, and architects of this period had begun their career, like Pheidias, as goldsmiths.

Remarkable specimens of English plate, both ecclesiastical and secular, ranging from the thirteenth century almost to the present day, are to be seen in the South Kensington Collection, in the Colleges of our Universities, in many churches and private houses, such as chalices, dishes, kettles, cups, or hanaps, Fig. 199.

Enamel, as we have seen, was known to the Byzantine

artists, but this kind of decoration was of Asiatic origin

and introduced with great splendour and effect in the work of the Lower Empire. The Egyptians, Assyrians, Greeks and Etruscans all used gilding on metals, wood, masonry, and marble.

Fig. 200 represents a trinket in antique gold work, ornamented with precious stones.

We know little or nothing of the methods of the old Greek and Etruscan artists to separate and join pieces at once so fine and minute as to be invisible to the naked eye, nor of their mode of melting, soldering,

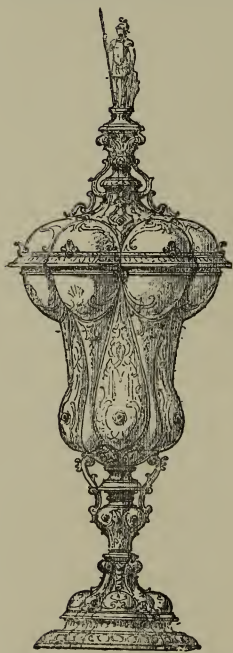


Fig. 199.—*Hanap, or Drinking Cup.*

and wire-drawing in their filigree and granulated work.

Signor Castellani, after infinite pains to discover the ancient mode of working the delicate



Fig. 200.—*Trinket, with Precious Stones.*

ornaments found in the tombs of Greece and Etruria, succeeded at last in producing brooches, bracelets, and



Fig. 201.—Brooch.

ear-rings, rivalling their models in elegance and manipulation, Figs. 201 and 202.

The method for working precious metals is the same as that employed for bronze, iron, brass, etc.; with this difference, that as their character is purely decorative, they will not be put to hard uses, but, on the contrary, will be preserved with great care. Consequently their chief characteristics should not be solidity and



Fig. 202.—Brooch.

massiveness, as is too often the case with modern ornaments, wherein the greatest amount of metal seems to be the main object. They should rather be distinguished by freedom, elegance of design and delicacy of workmanship, especially when shells, pearls, gems, and precious stones are studded about the work as points



*Fig. 203.—Work in
Precious Stones.*

and sparkles of effulgent colouring and effectiveness, either to represent foliage, flowers, or animal forms, as seen in Figs. 203, 204.

Even simple designs, such as bracelets, are often spoiled through being made too thick and heavy, unrelieved by decoration, and more appropriate to house furniture than to adorn the wrist of a lady. Our Fig. 205 shows that the same object, varied by a simple design, be it nielling or enamel, will at once raise its standard from an artistic point of view.

It may be urged that such is the fashion, but if fashion is bad why not alter it? Reference to the models handed down from the best periods of art is within reach of every one who will take the trouble to visit our stupendous public collections; and if the designs and forms cannot be styled "the last thing out," that does not necessarily detract from their intrinsic value.

Do we complain because nature reproduces as surely as the spring comes round exactly the same forms and the same tints in the vegetable and animal kingdoms?



Fig. 204.—Work in Precious Stones.

Are we not ready to welcome the ever-recurring snow-drop, the simple primrose and the no less simple but sweet-scented violet, as well as the more brilliant galaxy

of their gorgeous sisters, and the wealth of leaf and foliage?

In conclusion we may remark that the art of cutting,

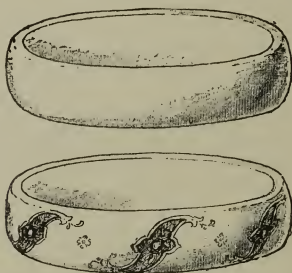


Fig. 205.—Bracelets.

polishing, and fashioning precious stones has reached such perfection that all their elements of beauty may now be developed to the utmost.

VII.—METAL ENGRAVING, STONE ENGRAVING, NIELLING, DAMASCENING, AND SGRAFITTO.

ENGRAVING is executed by means of tools of various sizes, the points being flat or rounded. Metal engraving is treated exactly like common engraving; the outline of the design is traced on the metal, then cut to the required depth with a graver, and the ground is matted or cut in light parallel or cross lines. But although the process is the same the result is widely different.

Thus, whilst the common engraver strives to reproduce as faithfully as possible the tones, the exact modelling, the texture and variety of the minutest details of the original picture, the decorative engraver will proceed by bold cutting of the general masses, contenting himself with bringing out the general shapes of the outline.

Stippling cannot well be too simple, either when introduced in the background or to shade the half-tints of the

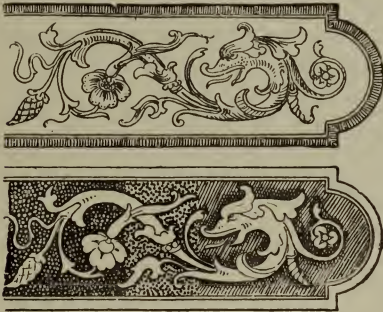


Fig. 206.—Engraved Metal.

form. Designs, it should be recollected, may be applied to inwrought or inversely to plain grounds, the ornament appearing matted or bright cut, Fig. 206.

As the outlines of graven forms lack precision, colour was added in very early times to the incised lines to remedy this, and thus gave rise to the charming and effective art of *nielling*, which consists of a compound of silver, lead, sulphur, and copper, made into a powder

and passed through the furnace, forming a dark-coloured paste carefully laid into the lines of the engraving, and yielding a pleasing contrast with the bright colour of the silver. The aspect of *niello* is that of an engraving.

Mention has already been made of the metal engraving of the nations bordering on the Mediterranean, but a word should be said upon the elaborate ornamentation, the wealth of engraving, of nielling and incrustation of Indian metal work, Fig. 207, its magnificence recalling

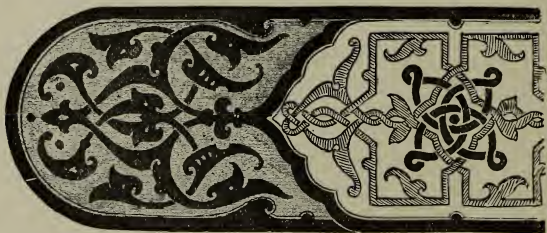


Fig. 207.—Indian Engraved Metal Work.

the glowing descriptions of the ancient poet. Nor should the artists of the Renaissance be left unnoticed, for they too were lavish in their use of nielling as a mode of decorating precious metals, Fig. 208.

Damascening is the art of inlaying or incrusting one metal upon another. It is generally done with gold and sometimes silver leaf or wire laid on the surface of iron, steel, or bronze. This system derives its name from Damascus, where it was practised and carried to the highest perfection by the ancient goldsmiths and

armourers in the manufacture of their ornaments and weapons.

Damascening was early introduced in Persia, India, Spain, and Italy; in the latter country the workshops of the *azzimisti* (colonized Persians) at one time furnished



Fig. 208.—*Persian Nielled Work.*

the whole of Europe with damascened work of the highest quality, Fig. 209.

The steels of Venice in the sixteenth century, and especially those of Milan, were justly esteemed. Not only were their weapons and armour damascened, but caskets and other pieces of furniture were ornamented with *niello*, enamel and arabesques of great delicacy and purity of design.

True damascening consists in cutting (intaglio) soft iron or steel, and filling the lines thus made with gold or

silver wire, which to be effective must be of a certain thickness. The engraving must be executed in such a manner that the sides of the lines are overhanging, the wire being carefully fastened in position or beaten with a hammer; when this is done the whole surface is gone over and polished. Another scheme equally effective and lasting is obtained by inserting small strips of gold in lines cut in steel or iron, and decorating these with relief



Fig. 209.—Perso-Italian Damascened Work.

or incised forms. Damascening may also be achieved by simply laying the gold leaf on the metal plate and causing it to adhere. Such work, however, is not durable, as the gold leaf is apt to get loose or otherwise to wear off.

Of late the new process of galvanoplasty has been applied to engraving with charming result. A reproduction of Japanese encrusted damascening has been obtained so smooth and perfect as to verge on monotony.

Engraving on stone or marble is precisely the same as metal engraving, with this difference, that as it is practised on large surfaces the treatment should be simple, as befits the gouge and chisel, the lines broad and characteristic, so as to be easily read at a certain distance. Adherence to this principle is seen on most mediæval and Renaissance tombstones.

Sgraffito * is obtained by an inlay of lime coloured with black ; when this is dry a white layer is passed over it and also allowed to dry ; it is then carefully picked out with a sharp-pointed style, the black uncovered lines forming the design.

This charming mode of decoration has been practised in Italy since the fifteenth century ; but other nations have only adopted it within comparatively recent years.

VIII.—MARQUETRY AND INLAID WORK, MOSAIC, AND COLOURED PLASTER.

MARQUETRY is executed by means of thin pieces of wood cut with the saw and put together, or glued in the patterns they are intended to form. Besides the endless variety of indigenous, exotic and stained woods, materials such as ivory, bone, tortoiseshell, mother-of-pearl, brass wire and other metals, are introduced to add point and relief, which may be increased by brazing and chemical processes, toning down certain portions until they are lost, and heightening others so as to obtain as

* Etching ; literally, scratched work.

much variety and effectiveness as are compatible with the materials employed.

It is self-evident that with such elements the nature of the composition must be restricted to geometrical designs formed from the square, the circle, the polygon or stellate in shape, and if curvilinear patterns are adopted, care should be had to avoid angles too acute ;

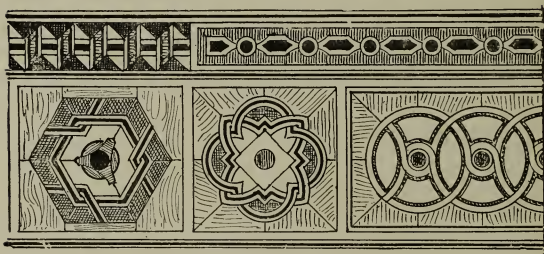


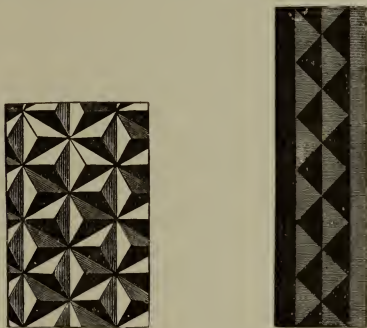
Fig. 210.—Eastern Wood Inlay.

because to the difficulties of fabrication would be added a disagreeable possibility to part and split.

Venice and the East generally afford numerous and beautiful examples of wood inlay, wherein geometrical forms are the sole elements of decoration, Figs. 210, 211, and 212. But flowers, foliage, fruit, animals and human figures may be introduced into inlaid wood-work. In this case, however, the artist must remember that the resources at his command being confined to a few flat tints, and engraving some of the parts, his composition should be well within the limitations of the materials employed. The figured compositions of the sixteenth, seventeenth,

and eighteenth centuries may serve as models for this kind of work, Fig. 213. It is clear that landscapes and architectural buildings, sometimes seen in Italian and Flemish wood inlay, are incongruous. Similar compositions are of necessity incomplete and at variance with a flat treatment.

Parquetry, or floor-covering, is executed in hard woods which should be cut into geometrical forms, arranged in very simple patterns; a more elaborate design being



Figs. 211, 212.—Italian Inlay.

reserved for the border, Fig. 210. This becomes inlaid work when woods of various shapes and colours form the design. Another kind of parquetry has been introduced in this country, consisting of patterns glued down upon canvas. Fine woods are now almost exclusively used in the form of veneers, the pieces of various colours being arranged in the required patterns on the wood foundation of the work. The effect may be increased

by hand-painting, gilding the edges, mouldings and the like. But if veneers may be rightly introduced to add



Fig. 213.—Figured Inlay Work.

effect and variety, their use ceases to be legitimate when beautiful pieces of oak or walnut furniture entirely disappear under them.

The Chinese and Japanese marquetry is exceedingly decorative in character ; it consists of an inlay of ivory, mother-of-pearl, jade, china, precious stones and metals slightly raised or sunk on a ground of wood, lacquer or marble, which may be inwrought or left plain. A similar mode of decoration requires great skill and subtlety of arrangement, owing to the easy descent from extreme brilliancy to tawdriness and vulgarity.

André Boule (or "Buhl," in England), born in 1642, was the first to introduce the peculiar form of veneered work which goes under his name. It is composed of tortoiseshell and thin sheets of brass ; or shell and copper, to which are sometimes added ivory and enamelled or precious metals. The plates applied by Boule and his followers to ornamental furniture form the groundwork and the design alternately ; the surface being richly decorated, its metallic parts chased, raised or embossed with pieces of metal ornament, Fig. 214.

The almost endless variety of coloured marbles have been and are used by the Italians, especially of Rome and Florence,* to decorate architecture and furniture. Their naturally rich effect may be heightened by the introduction of semi-precious stones, such as jasper, agate, onyx, lapis-lazuli, bloodstone, etc. But their selection should be judicious and restricted to giving point and relief, without aiming at faithfully reproducing natural and living objects. Roman marble pavements

* Marble inlay is often improperly called "Florentine mosaic," but true mosaic is obtained by a totally different process. (*Vide* § X.)

are divided into two classes. The "tesselated," from



Fig. 214.—Buhl Encrusted Work.

tessera, small cube, and *sectile*, cut. Of these the tessellated is probably the most ancient, and was at first

arranged in chequered patterns of black and white, and in process of time in different colours. The earliest record of marble inlay is found in the Book of Esther, 450 B.C., where we read of "beds of gold and silver upon a pavement of red, blue, white and black (marble)." The Greeks excelled in this kind of work, and Pliny

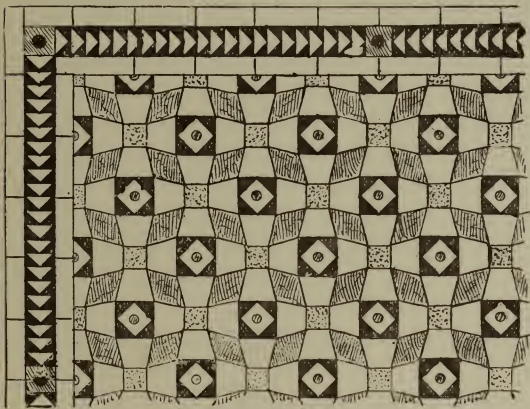


Fig. 215.—*Opus Alexandrinum.*

naturally ascribes its origin to them. The best examples of tessellated work occur at Pompeii and Rome ; but very fine specimens are found in this country, and wherever Roman colonisation extended. The most beautiful specimen of sectile pavement is seen in the Pantheon at Rome, 30 B.C., where the principal marbles are arranged,

each of considerable size, in alternate round and square slabs. A third variety commonly used in Italian churches from the fourth or fifth century to the thirteenth, is called "Opus Alexandrinum." It consists of an arrangement of small cubes, generally of porphyry or serpentine, com-

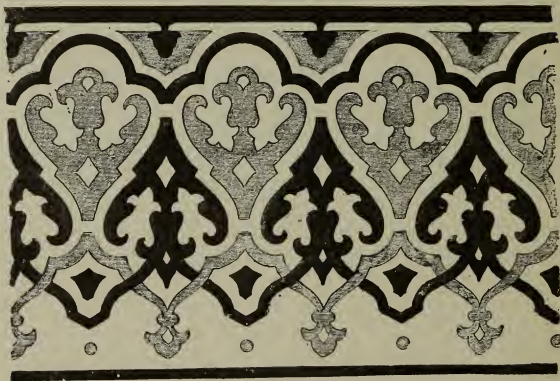


Fig. 216.—Saracenic Pavement.

posing geometrical designs, cut in the white or black marble slabs, Fig. 215.

It is the direct forerunner of the richer and more beautiful curvilinear designs and arabesques of the Saracens, Fig. 216, who knew how to unite excellence of form to the sense of flatness essential in a surface destined to be trodden upon. This principle is set at nought in the celebrated pavement executed by Beccafumi, for the cathedral of Siena, representing biblical subjects in

coloured marbles of white, grey and black ; a certain amount of modelling being obtained by shading and hatching some of the parts. Beautiful though it be, it would have been more appropriate on the walls and ceilings, where everybody could see it, whilst now it must be covered for the greater portion of the year in order to protect it from the feet of the visitors. Near it are also compositions by Duccio, which, though inferior to Beccafumi's in style and conception, are more fitting the place and surroundings for which they were executed. Indian palaces too are generally enriched with marble inlay and carving of exquisite ornament, whilst coloured plaster, applied on a ground of stone or other plaster, is sometimes used in floor covering ; but as few mineral colours will combine with lime, the designs must of necessity be very simple and strictly conventional.

IX.—ENAMELS.

ENAMEL is a compound fused and vitrified by being passed through the furnace, and is generally applied to metal. Enamel may be either embedded, *cloisonné*, the oldest of all, *champlevé*, *translucent* and *painted*. Cloisonné enamel, also called "encrusted," is obtained by filling with the enamel, reduced to fine powder, small cells formed by means of slender strips of metal fixed or welded on to a ground likewise of metal. The piece is then placed in the furnace, and when the fusion is complete each compartment appears set in thin bright wire, retaining the enamel and slightly raised upon the plate.

It is then withdrawn and allowed to cool slowly ; and when thoroughly cold it is ground and polished. The old artists were very careful in the preparation of their



Fig. 217.—Cloisonné Chinese Enamel.

enamels, using none but the purest gold, so that the plate might not be injured from the action of the fire.

Cloisonné enamel must not be confused with glass or

precious stones, carefully shaped and set in gold cells, found in Egypt as early as 2000 B.C. This system is also met with in Assyria and Persia, whence it was introduced to Byzantium, whose artists supplied the West, especially the Italian peninsula and Sicily, for hundreds of years with mosaic and inlay work, enriched with gold



Fig. 218.—Champlevé Enamel.

grounds and figures gorgeously draped in true Byzantine style.

In the embedded enamels of the Middle Ages, the outline of each figure is formed by the thickness of the metallic wire. This form is also practised by the Chinese, whose work, including animals, flowers, foliage, the rich plumage of birds, the metallic glitter of serpents' scales,

undulating water, etc., are encircled in a bright rim, whatever their distance, Fig. 217.

In *champlevé* the cells for the reception of the enamel are sunk or cut by means of the graver in the plate, itself generally of copper. This process is much more labo-

rious, and the design cannot be made as flowing as with the flexible gold wire. *Champlevé* is generally applied on large surfaces; intervening spaces may be left in the metal and afterwards engraved, forming a pleasing contrast with the enamelled designs, Fig. 218.



Fig. 219.—*Repoussé Enamel.*

Another form of embedded enamel, very soft and of charming effect, is obtained by placing two or three graduated tints of coloured enamel in the same cell. This, though satisfactory in small objects, cannot be applied to those of large dimensions, such as vases, basins, and the like.

There is a very subtle mode of decoration occasionally met with in mediæval work. The outline of the design is first carefully marked out; the portion composing the principal subject is struck up, bosses in the round, half or quarter-round being reserved for the high light, such

as the face, neck, hands, feet, etc., which receive a light flesh tint; rich colouring being applied to the accessories, such as the tunic, mantle, and portions of the dress, whilst the sunken background is inwrought with a delicate network of monochrome floriated scrolls, Fig. 219.

The enamelling now practised in England is modelled or moulded with ornaments and set on gold or other metal, and is almost identical with that of the Chinese.

Beautiful specimens in this style have been produced by our metal workers. The composition of the enamel is glass made of lead, sand, and borax, coloured by means of metallic oxides. The enamel can be rendered translucent or opaque at will. The varieties of colour exceed two hundred, and new acquisitions are made every day.

The working palette of an enamel artist is almost as rich as that of an aquarelist or oil painter, and well adapted to delicate designs, modelling of forms and fineness of detail. Nevertheless, it is well to remember that the best enamels produced in France during the reign of Francis I., under the influence of Benvenuto Cellini and other great Italian artists, were distinguished by sober, harmonious colouring, almost monochrome, of excellent effect.

Painted enamel is applied in successive layers over the whole surface of the metal plate, and decorated, as was noticed earlier, with fusible metallic oxides. The plate is then subjected to the furnace, when the colouring matter sinks into the subjacent paste. Enamels are

sometimes covered with a thin transparent layer which lets in the light at the back, throwing up the whole colouring. Dark enamels may be "touched up," or outlined with a gold or silver rim. Enamels were painted by the Italians in the fourteenth century; at first exceedingly rudimentary, they improved in process of time, and reached their highest perfection at the hands of Pénicaud, Courtois, and notably Léonard, surnamed Limousin, from Limoges, his birthplace, 1532—1574. The figures of Léonard are generally painted with bright hair and pink cheeks, standing out on a dark ground. His high reputation was shared by his countryman Raymond, whose works rank almost as high as his, and fetch enormous prices.

A coarse kind of enamel on brass was made in England in the reign of Elizabeth; its colour is light and dark blue with white, the interstices being inlaid with a pattern in relief. Two candlesticks of this work are preserved in the South Kensington Museum, as well as a beautiful specimen of translucent enamel upon relief, marked Italian, *cir.* 1580; interesting from the fact that it seems to have been obtained by the process so minutely described by Benvenuto Cellini in his Memoirs.

Painted enamel applied on a surface previously struck up in relief corresponding with the designs, has almost the effect of an enamelled bas-relief; the mingled brilliancy of its rich blues, reds, greens, and yellows upon the shining metal is highly effective and pleasing.

The art of applying enamel to gold and silver was practised in China and India at a very early period, whence it passed into Assyria, Persia, probably Egypt

and Europe. The old Etruscans and Greeks used enamel to enrich their ornaments ; and exquisite specimens have been found in their tombs, representing birds, doves, peacocks, flowers, and foliage executed with a degree of skill and dexterity, making it clear that the handicraft had long been in use. A fine collection is preserved in the British Museum.

Brooches, crosses, bracelets, rings, and the like have also been found in England and Ireland, showing that the art was known during the Roman occupation, if not before.

Enamel was applied from the tenth to the sixteenth century to all manner of things, such as armour, caskets, candlesticks, ewers, basins, croziers, book-covers, rings, etc. In the present day vases, chalices, châsses, flagons, candelabra, and jewellery are so enriched.

Of enamels applied to glass or made to imitate jewellery and precious stones, the earliest and best examples that have been preserved are a blue cup, enamelled and gilt, in the Murano collection, *cir.* 1440, and two fine pieces in the British Museum.

The value of enamels as a means of decoration has been felt from the earliest ages by every civilised nation ; but, however beautiful, its adoption should be confined to designs and “fillings,” leaving the metal foundation very apparent. This is what makes cloisonné and incised enamels so satisfactory, wherein the forms are introduced upon a plain metallic ground ; on the other hand, had they extended over the whole surface, the sharp outline would have been destroyed, and with it much of its effectiveness, Fig. 220.

Unfortunately, these enamels are only for the wealthy, for they involve great expenditure of skilful and patient labour; on the other hand, ample opportunity to study them and to compare the various methods by which they were achieved are offered to the student in the rich collections of Eastern and European art enamel, preserved in the South Kensington and British Museums.

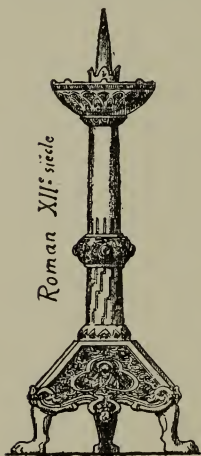


Fig. 220.—*Cloisonné and Champlevé Enamel.*

X.—MARBLE MOSAIC AND ENAMELLED MOSAIC.

MARBLE mosaic is the art of putting together small cubes varying in size and colour, so as to produce a design, care being taken to fill the joints with cement in order to obtain a smooth surface. In good fine work these joints are not seen even with the magnifying glass.

Old Roman mosaic is entirely composed of hard substances, as opposed to Byzantine and Venetian mosaic, formed of small pieces of plain or enamelled glass, usually set in gold, sometimes covered with it;* which superseded the former from the fourth century, and was introduced in the decoration of churches and the houses of the wealthy.

* The tesserae found at Pompeii are covered with gold.

Roman mosaics are divided by a learned authority into tessellated and sectile, applied to pavements generally; fictile and vermiculated or pictorial, applied to walls and ceilings. Fictile mosaic is formed of a compound of silex and alumina, coloured by metallic oxides and cut to the required size to form the design or picture.* This material offered many advantages; it could be obtained of any variety of colour or form, and was far less costly than the precious marbles. Hence its popularity with the Romans from the earliest times in decorating their houses with it.

The best specimens of glass mosaic are found in St. Sophia at Constantinople, Sta. Maria Maggiore at Rome, St. Vital at Ravenna (some time the seat of the Western Empire), St. Marc in Venice, and the Cathedral of Moscow. A very fine specimen of this work, 1270, decorating the tomb of Edward the Confessor, is preserved in Westminster Abbey.

The mode of execution of this kind of mosaic is generally large and coarse; the cubes are irregular in shape and divided by very apparent joints, wholly inappropriate to subtle modelling and pictorial treatment. "Yet," says Sir D. Wyatt, "the effect is splendid, luxurious, and solemn withal, and unattainable by any other means which have been employed in architectonic decoration."

The mosaics decorating the walls of St. Peter's at Rome date from the fifteenth century; they are copies of well-

* The small enamelled cubes used in this work are called "smalto" by the Italians.

known pictures, which took years of patient labour and much technical skill in their reproduction. The result, however, is scarcely satisfactory ; the uneven and rugged surface being ill adapted to represent the fine texture, the variety of tones, and the half tints of an oil-painting. But whilst we condemn, we should remember that but for the durability of mosaics, no ancient pictorial work would be known to us ; and that some of these very mosaics in St. Peter's are all that remains of paintings



Fig. 221.—Mosaic : Light and Dark Colours Contrasted.

that have been destroyed, and which now we would only know from contemporary documents.

The examples of mosaics which have been preserved show an amazing variety of subjects, ranging from a broad, flat treatment outlined by a gold rim extending to the details, or vigorous modelling produced by the juxtaposition of dark and light colours, as red and white, or black and white, for example, well seen in our Fig. 221, to great delicacy of execution and softness in the shades and tints ; when not only flowers, foliage, and wreaths, but even the animal and human form may be portrayed, Fig. 222, provided due regard is had to the material employed.

It is self-evident that the conception of mosaic pavements must differ from that of mosaics intended for



Fig. 242.—Elaborate Mosaic.

walls or ceilings ; and that a subject proper in a vertical position will be incongruous when transferred on a flat

surface. The basis of all floor-coverings should be geometrical, and when floral or animal forms are introduced, their treatment should be flat and purely conven-

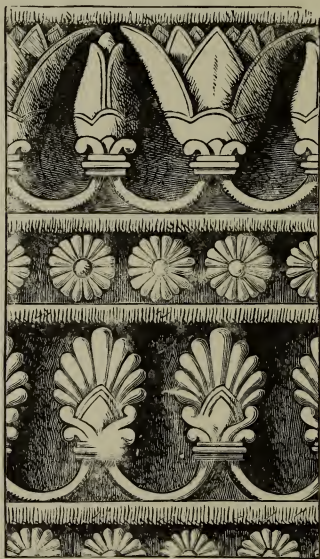


Fig. 223.—Assyrian Mosaic Pavement.

tional, as in Fig. 223, forming the border of an Assyrian pavement now in the British Museum.

The supposition of archæologists that Egypt was acquainted with mosaics has been placed beyond doubt

by recent discoveries. In a temple built under the Ptolemies, *cir.* 160 B.C., were found "walls covered with encaustic tiles and bricks, of beautiful workmanship, the hieroglyphs in some being *inlaid in glass*. The capitals and cornice were inlaid with brilliantly coloured mosaics." *

Mosaics have of late years been made in France and in this country, where their rich warm colouring is well calculated to enliven our gloomy skies.

XI.—BLOWN, CUT, ENGRAVED, AND ENAMELLED GLASS.

THE art of making glass is of very ancient date; glass bottles are seen on Egyptian monuments more than four thousand years old; whilst paintings of the same period exhibit the glass-blowing process. A glass bead has been found in an Egyptian tomb, with inscription and date, *cir.* 1500 B.C.; and a glass vase unearthed at Nineveh, and now in the British Museum, bears the date 700 B.C. On the other hand, ancient writers describe statues, obelisks, and other large pieces which must have been made of glass. Glass was known to the Phœnicians, who carried their own and Egyptian art into every country bordering on the Mediterranean. The small vases that have been discovered in Etruscan and Greek tombs bear a strong resemblance to one another, both in form and colour; the ground is usually blue, ornamented by

* Bib. and Archæ. Rept. 1880.

white, yellow or light blue zigzag lines ; a form of ornamentation also observed on the pottery brought to light by Dr. Schliemann at Hissarlic, in the Troad.

Glass has been found in windows at Pompeii, and Pliny enumerates opaque, red, white, and black glass made in his time. Glass, imitating precious stones, or brightly iridescent like the inside of a shell, coated glass, that is, composed of different colours, and treated like a cameo, was practised by the Romans. The most remarkable example of this kind of work is the Portland vase, found in a sarcophagus in Rome and now in the British Museum, where the student can observe it.

The system has been revived in Italy, in Germany, and notably in Bohemia, where coated glass pieces are decorated with landscapes, flowers, and foliage, displaying admirable skill in manipulation, but utterly devoid of decorative character.

The glass-maker is obliged to work at such enormous speed that a drawing would be superfluous, and he must be ready to seize the moment when the material is soft and malleable and easily reduced into shape. Hence the blending of colours and the ultimate form are dependent upon his taste, quickness of eye, and dexterity of finger. Accessories, such as handles, volutes, spirals, dots, beads, figures, flowers and every conceivable device are added or soldered on to the vessel afterwards.

Glass blowing admits of beautiful curved forms and tenuity of substance ; these forms and this character are well seen in old Venetian specimens, Fig. 224. Colourless or transparent glass is generally used for drinking pur-

poses; it is quite plain or with a simple rim; but show pieces are treated with the greatest freedom both as regards design and colouring. Venetian glass may be divided into colourless vessels, which are frequently decorated with coloured glass, laid on externally on the body and on the stem of the vessel; glass of single colours of blue or purple mixed before they are worked;

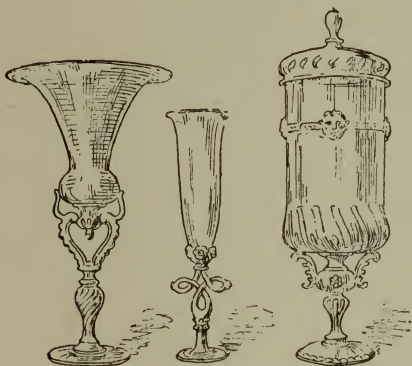


Fig. 224.—Venetian Glass.

gilt and enamelled glass, only suitable for pieces of a certain thickness, such as tazze, bowls and the like—the oldest specimen of this kind of glass known in Europe was manufactured in Venice during the fifteenth century; crackled glass, *i.e.* glass with a rough surface divided irregularly into ridges; variegated, or marbled opaque glass—the most common is a mixture of green

and purple, made to resemble precious stones ; Aventurine glass obtained by mixing metallic filings, or fragments of gold-leaf, with melted glass. Millefiori, or mosaic glass, is an imitation, *longo intervallo*, of the fine old Roman process. Reticulated filigree or lace glass, wherein fine threads of coloured glass, sometimes milk-white, form the ornamentation, are among the most beautiful of the products of Murano.

Briefly stated, the process is this : hollow rods enclosing threads of opaque or coloured glass, are placed side by side in a mould, and a thin bubble of glass blown into the midst so as to adhere to the canes ; this done, the whole is once more heated and formed into a hollow cylinder, which is then fashioned after the manner of ordinary glass.

The earliest glass-making in England seems to have been about the beginning of the reign of Elizabeth. Venetian glasses were made in London, under the supervision of Italian artificers, and the old mirrors met with in most country houses are of this period.

Modern Venetian glass, cut to imitate crystal and profusely ornamented, is an error of judgment ; on a different scale and in a different way, so are those colossal vases which are made to imitate marble.

The art of wheel engraving upon glass was practised with great success in France. The designs are generally delicate and laid on the surface ; but on rough thick pieces, they are cut into the glass, the engraving or form showing right through. When greater variety is desired hatching is added as in metal engraving.

Cut glass should be of a certain degree of thickness, and may be divided into glass with plain surfaces, the easiest of all in manipulation, and glass with carved surfaces, *i.e.* cut in grooves, triangular flutings, chamfered edges, star facets, brilliant cut, etc.. Fig. 225.

A glass-worker should possess some education, for it is not enough to be able to produce a good drawing or an elegant shape, he must also understand the great and almost endless variety of plans and geometrical combinations that occur in Nature, both in precious stones, crystals, etc., and in the vegetable kingdom, in order to reproduce them with truth and feeling. Knowledge of these natural laws will preserve him against the common error of repeating the form in the same object, knowing that the multiplicity of its facets will interfere with one another and destroy the

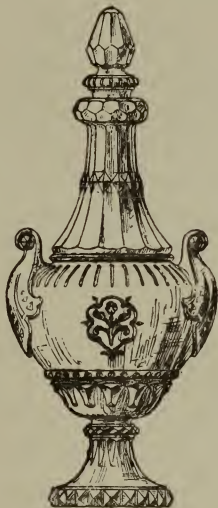


Fig. 225.—Cut Glass.

effect. This principle is well kept in view in Fig. 226, representing a polygonal salt-cellar, having a single star cut at the back, which is reflected on its face, and throughout the object.

Enamelled Persian glass, Sassanid vases and the lamps seen in Mohammedan mosques, are generally cast in monochromes, or a greenish colour, Fig. 227, with touches of gold or silver thoroughly satisfactory.

Old Venetian, and notably German vessels, are likewise monochrome in character and ornamented with escutcheons, shields, armorial bearings, and every variety of device, drawn with much skill and delicacy. Some good examples are in the British and South Kensington Museums.

We will end this study with a word of mention upon glass used by the goldsmith with metal mountings, either flat or in high relief. The association of the two materials is reasonable and legitimate, the hard substance supplying the more fragile with the much needed support, whether as light net, showing the transparent glass right through, circling a ring, necklet, girdle,

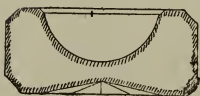
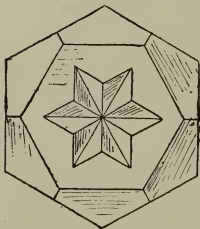
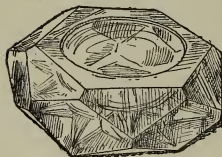


Fig. 226.—Polygonal Salt-cellar.

etc., or as footing, handle, hilt, suspension hooks, and the like. But in order to obtain a decorative result, the metal must be distributed all over the work, so as to show the perfect agreement of the two materials.

Flint and crown glass, having lead as their basis, are extensively manufactured in this country. They are more substantial and not so costly as Venetian glass, which owes its lightness and strength to the absence of lead.

Rock crystal, found in abundance in Bohemia and Scotland, is cut like precious stones and belongs to jewellery. In glass candelabra, the effect of which will be seen at night, the worker should aim at reproducing the prismatic colours, the angles and plans most favourable to scintillation.

The fifteenth, sixteenth, and seventeenth centuries, both in Spain, Italy, Germany, France, Austria, and Poland, produced admirable examples of glass mounted in gold or silver gilt, or on a metal plate as a foundation, Fig. 228. The most remarkable specimen was executed in the reign of Louis XIII. for the chapel of St. Esprit, now in the Louvre collection. We know that coloured glass was made in Byzantium and Rome, but owing to its brittleness few examples have come down to us. The famous dish preserved in the Museum of Genoa, which was brought from Cæsarea in 1101 A.D., may be Byzantine glass, and probably also a bowl in the British Museum.

XII.—STAINED, PAINTED, AND ENGRAVED GLASS.

COLOURED glass is obtained by a mixture of metallic oxides, whilst the mass is in a state of fusion. This colouring pervades the whole substance, and becomes incorporated with it. To “paint” glass, the artist

applies, on a colourless or tinted plate, the designs and the colours on one or both sides of the plate. These colours, a compound of metallic oxides and vitreous substances, are true enamels, which assisted by heat

are fixed upon the plate.

"Stained" glass was used throughout mediæval times, in churches and houses of importance. At first, it was merely a kind of translucent mosaic, formed by piecing together small cubes of glass of a single tint in simple geometrical patterns, held together by mere strips of lead forming the design. When greater variety was desired, hatching and stippling were added. Such were the windows of the eleventh and twelfth centuries. But towards the beginning of the Renaissance, larger plates of glass were introduced, and "painted" windows became general.

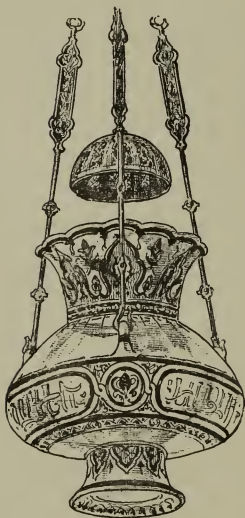


Fig. 227.—Moorish Lamp.

The student will do well to compare the methods that divide early "stained" from "painted" glass. The difference is particularly noticeable in the windows dating from the twelfth to the fifteenth century; which

despite their multitudinous small compartments, splitting up the colour and preventing the diffusion of light, are far-away the best decorative glass ever produced. In them there is no straining after complexity of effect ;

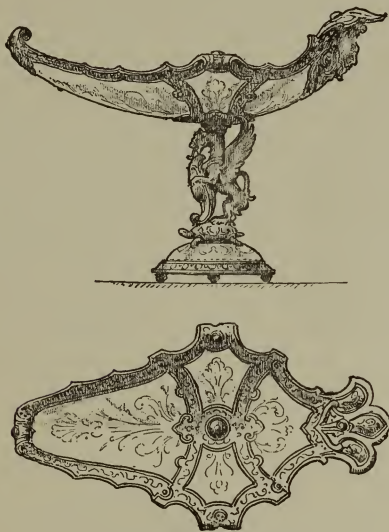


Fig. 228.—Mounted Glass.

pieces of required colour were carefully selected to carry out a well-conceived design, and the result is artistic and pleasing. But in the seventeenth century, when glass-blowing was better understood, larger plates were used,

as well as elaborate stipplings and hatchings generally of a brown colour, which produced a murky and confused aspect.

This is the reason why we feel so dissatisfied when we contemplate the otherwise very beautiful windows of the fourteenth century, with their profusion of browns and yellows, which finding no counterpart from without strike us as cold and inharmonious. All their beauties would have been felt with a Spanish or Italian landscape around them.

As the object of a window, stained or otherwise, is to let the light through, the design should be simple, the tints luminous and the lights preponderating, whilst the shading and other details should be painted in bold lines, Fig. 229. Extensive backgrounds should be avoided, and care should be exercised to fill them in with tracery and interlacing in semi-tones or "monochromes." This will effectually prevent the colour from outside getting in wholesale and destroying the harmony of the composition. The student must not only compose his work in view of the building it is meant to decorate, but also with regard to the colouring it will reflect and let through. Thus, remembering that an English sky is never of the depth of an Eastern sky, the blues of his window should reflect those outside. In like manner, his greens should harmonise with those around, relieved here and there by "bits" of colour, flowers, or berries growing in our fields and hedgerows.

To prevent colours from invading or "eating" into each other, black lines or intervening white spaces are



Fig. 229.—Painted Glass Window.

introduced. These spaces are essential in deeply coloured and highly ornamented glass.

German work of the sixteenth century is the best known. It consists chiefly of vessels of a greenish cast ornamented with paintings in enamel, such as escutcheons and armorial bearings. The designs show much talent and delicacy, Fig. 230. Roman artists under Byzantine influence made use of glass raised in bosses set in simple work, the circle or the square forming the basis of the design. This method was revived in Flanders, and especially in Germany, during the Early Decorated period. The patterns are invariably geometrical, and often very rich and beautiful in form; the lead, far from detracting from the decorative character of the composition, serves to accentuate and enhance its effect.

England, Flanders, and France afford the most admirable examples of mediæval stained windows; amongst others Fairford, in Gloucestershire, and University College, Oxford, may be cited.

In France, probably no painted windows excel those of the Sainte-Chapelle in Paris. The art declined towards the end of the seventeenth century. About a hundred years ago efforts were made to revive this fine work, but with small results. It has now entered upon a new phase, and by reverting to good traditions, a fair prospect of a lasting and well-deserved success may be predicted for it.

In warm countries, coloured windows are formed of small pieces of glass, set in marble or plaster work, with

openings which slant towards the room, allowing the inmates to see abroad unseen. The rays of light striking

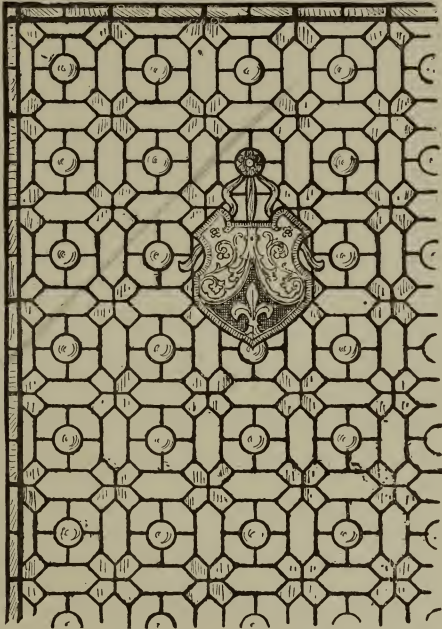


Fig. 230.—German Stained Glass.

simultaneously on the white marble and the coloured glass produce a well-tempered effect.

The elaborate medallion windows of the thirteenth century were generally reserved for large churches and cathedrals. They are distinguished for rich and harmonious colouring: albeit by reason of the diminutive size of the glass pieces, the subjects are either carried over the joints, or made too small to be distinct at a certain distance. In the fourteenth century the windows divided into small compartments superseded the old medallion scheme, and the subjects were piled one upon another with sometimes a flat canopy.

Engraving upon white glass by means of hydrofluoric acid has become very popular, and may be obtained at comparatively small cost. This acid eats into the surface of the glass, following the pattern traced upon it, and scoops out the lines of the form.

XIII.—STUCCO, PLASTER, PLASTERED CANVAS, IMITATION STONE, IMITATION WOOD, AND LACQUERED WORK.

STUCCO* and plaster enter largely into construction, in which they are extremely useful and ornamental; obtained too at little cost of labour or of material, taking the form with admirable readiness. Hence their value depends upon the degree of excellence of the fabrication.

The moulds used to press in stucco or paste are either of clay, wax, sand and loam, or plaster of Paris. When the figure is not ornamented at the sides, the moulding

* Stucco is usually composed of plaster, lime, chalk, pounded alabaster and marble.

is done as a whole ; but parts in relief, such as the head, the shape of the dress, of the shield, of the helmet, etc., have to be done separately by means of false cores or movable pieces.

“Template moulds” (*lehrböden*) are used to mould patterns with ornamental work on the sides, especially in cases where many castings have to be made of the same pattern. Template moulds may be used several times.

The usefulness of plaster has been felt by most nations of antiquity. Decorative plaster was used in Rome and Pompeii wherever high relief was desired, such as vaulted ceilings, friezes, cornices, capitals, and the like. It is well known that the Byzantines and the Italians throughout the Middle Ages made use of plaster to decorate their palaces and houses. In the hands of Pastorino da Siena, Giovanni da Udine, and Alessandro Vittorino, plaster was fashioned into the most delicate and exquisite ornaments, or cut and kneaded in the mass, like sculpture.

But the art reached its perfection with the Moors of Spain. On a foundation of bricks, pise, wood, or reed grass, they produced works at once light and elegant in form, well plastered over and ornamented with gold and silver, with purple and green, and blue of marvellous effulgence and effectiveness, Fig. 231.

Who doubts that if the Alhambra and the Alcazar had been built in marble that their effect would have been increased tenfold? But when we consider the means that were employed and the charming result that

was obtained, we can but admire the skill, the dexterity and artistic feeling which they display in so remarkable a degree.

Considerations of expediency have rendered plaster



Fig. 231.—Moorish Plaster or Stucco Work.

very popular in modern times ; its composition has been much improved, and by colouring and polishing a fair imitation of marble has been obtained. We do not

advocate imitations as a rule, yet it is difficult to see what other means within reach of everybody could be found, on the whole, productive of the same effective result. Could the world-famed ceilings of St. Mark's Palace in Venice, for example, be reproduced in any other way? and who but princes and millionaires would be able to afford the enormous cost of well-seasoned wood of sufficient size for a similar work? Few are rich enough to decorate their houses with marble or stone, and we think that if plaster is made to look what it really is, little can be urged against its employment.

When several castings are to be made of the same model care should be had to keep the outline sharp and well-defined albeit without undue fineness, since the object will be seen at a certain distance, and each successive casting will blunt the edges and indentations, which layers of paint applied to preserve the form will increase. Indeed, all the productions are better for a good coat of paint, and plaster being naturally brittle breaks off easily unless so protected.

Shall we do more than mention imitation stone, imitation marble, imitation wood, imitation terra-cotta, which people our gardens and cemeteries? The reason of their adoption is so self-evident that we may well leave them to the individual taste of those who believe that inferior ornament is better than no ornament at all.

Carton-pierre ornaments are made of paper-pulp mixed with whiting and glue, cast in plaster moulds, and dried gradually. They are admirably adapted for large deco-

rations, on account of their lightness and durability. Pasteboard has been used in France for nearly fifty years; in England it has also been applied to ornaments with much taste and skill.

Still better are papier-maché ornaments, which are obtained by a mixture of paper pulp, glue, and resin, pressed into the mould or between dies, as well as by



Fig. 232.—Chinese Lacquer Work.

pasting sheets of paper on models. These articles when dried are varnished, japanned, and ornamented. Plastered canvas is employed in the decoration of ceilings, and consists of steeping tow in plaster and then moulding it. This method produces light casts.

Of all the lacquered work made, that executed by the Chinese and Japanese is the most beautiful. Their old lacquered cabinets, trays, boxes, and the like fetch high

prices. They are distinguished by excellence of workmanship, finish, and admirable decoration. The best kind of lacquered work originated with China; the designs are produced in bronze and gold powders of various tints, the figures raised and modelled on the ground of the work, Fig. 232.

In England, at the beginning of this century, an artist of the name of Booth reproduced Japanese and Chinese ornamentation of such admirable impasto that it is difficult for the best judges to distinguish it from real Chinese or Japanese work.

XIV.—POTTERY MADE ON THE WHEEL, MOULDED AND STAMPED TERRA-COTTA, ORNAMENTED POTTERY, KAOLIN, STONEWARE, AND MONUMENTAL TERRA-COTTA.

CLAY is a material extensively distributed over the surface of the earth; its plastic nature is easily recognised, even by the rudest savage—abundantly illustrated by the specimens brought to light or found among uncivilized tribes of the present day.

The art of the potter is so remote, that most early nations ascribe their knowledge of it to the direct intervention of a benevolent deity. Be that as it may, fragments of pottery have been found in tombs and in the ruined cities of prehistoric peoples, wherever excavations have been made. The sacred and classical writings contain numerous allusions to the potter and the various methods employed by him. That the manufacture of

pottery had attained a considerable degree of excellence in what we consider very early times, is shown by the multitudinous examples furnished by Egypt, Babylonia, Assyria, Persia, China, Greece, and Etruria, including glazed, coloured, and enamelled pottery.

Besides the vase and its derivatives, utensils for daily use were made of unbaked and baked clay or "terra-cotta," such as large amphoræ, to hold oil, wine, water, grain, and the like; tablets, to graven their histories; lamps and candlesticks, boxes for ornaments, coloured beads, statuettes, and architectonic decorations, as may be seen in all our museums. The Campana collection contains some admirable and interesting specimens,* Fig. 238.

Pottery, as distinct from porcelain, is formed of clay (mixed with marl of argillaceous and calcareous nature and sand), and may be divided into "soft" and "hard," according to the nature of the composition and the degree of heat to which it has been subjected in the kiln.

Pottery may be "unglazed," always porous, "lustrous," "glazed," and "enamelled." The foundation of all these varieties is appreciably the same, and the "paste" or "body," is formed by hand, or on the wheel, but when composed of pounded lava, or broken up earthenware and clay, it is impressed into moulds and decorated like any other pottery. What is known in England as earthenware is always soft, whilst stone-ware and queen's ware are hard. The hardness of the paste may be ascer-

* The excellent decorative character of these compositions is somewhat destroyed by profuse ornamentation.

tained by a knife or file, on some part of the vessel free from glaze.

The fine black glaze of old Greek vases (700 to 200 B.C.) and the red glaze of Samian bowls and dishes made in later times under Roman influence, and found in England on the site of Roman stations, have never been



Fig. 233.—Greek Pottery.

surpassed. The “matt” colours found on Greek vases of the best period (450 to 350 B.C.) are not true enamels or glazes, but as in early Egyptian, Assyrian, and Etruscan pottery, are only coloured clay, fired at a very low temperature, decorated sometimes with raised lines or slips extremely friable, Fig. 233.

The Arabs established, as early as the beginning of

the twelfth century, manufactures of lusted pottery in Spain, and fragments of Roman and Moorish pottery of the tenth and eleventh centuries have been found in several places, Fig. 234. Very beautiful speci-

mens of Hispano-Moresque ware are in the South Kensington Museum.

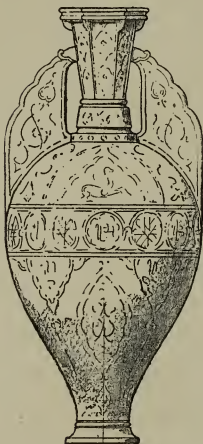


Fig. 234.—*Hispano-Moresque Ware.*

The application of the lathe on which the clay was placed and on which it revolved, producing combinations of oval, spherical, and cylindrical forms, is met with in all countries and nationalities the most diverse.

In comparatively modern times Italian and French manufacturers have produced pottery coloured and ornamented with admirable designs in relief, Fig. 235.

Porcelain is distinguished, like pottery, by “soft” and “hard paste,” the softness

being due to the proportion of silex. Porcelain is composed of two substances, the one fusible, which produces transparency, and the other infusible. Soft porcelain is of various elements, the composition of which varies in the different factories. Hard porcelain is of Oriental origin and is made of the white clay called *kaolin*, which is found in its natural state in

China, but which may be artificially composed by chemical ingredients. Porcelain is “unglazed,” “biscuit,” “glazed,” and “enamelled.”

The porcelain of China and Japan is frequently oval, square, or polygonal in shape, of every gradation of



Fig. 235.—Rouen Art Pottery. Fig. 236.—Japanese Pottery.

colour, reproducing flowers and fruits, beasts, and birds, and shells, and other natural forms. The grotesque dragons and reptiles, the fish and gigantic birds, as indeed the whole series of monstrous objects seen on this ware, are but traditional representations and symbols of their ancient mythology.

The porcelain of Japan is of a more brilliant white,

and of a better clay than that of China. The Japanese have applied embedded enamel and lacquer to some of their wares and have sought for endless variety of effect. Their jars and vases are of every conceivable form; shallow, cylindrical, round, square, oviform, etc. In ornamental pieces, besides men, birds, and animals, other designs are introduced, such as a pine cone, a section of bamboo, a gourd, a fire-fly, a swallow, a cluster of wisteria, and the like, reproduced with great truth and fidelity, Fig. 236.

Pottery should not be characterised by extreme delicacy of make, nor should designs proper to metal be reproduced in the very different material of clay. This important principle is not always observable in the Oiron ware; wherein the artists, eager to show their technical skill, have overloaded their pieces with figures, brackets, masks and the like, or with interlacings of yellow, blue and green, picked out with gold, investing the whole with a bronze-like aspect. But we cannot too often insist that earthenware should keep a mean course between the massiveness of stone and the sharpness of outline suitable to metal. It should be noted in this place, that pottery does not contract like porcelain in being subjected to high temperature in the furnace.

Accessories in high relief, handles, for example, stems and masks, are kneaded or moulded apart, and applied to the vessel by means of a soft paste, and the whole fired again. These accessories are sometimes in metal, and act as supports to the piece, especially when the paste or body is soft. For the same reason we see old

and rare pieces mounted in gold or silver-gilt; the joints of which are always well defined and carefully riveted.

The "rustic plates" of Bernard Palissy, decorated with reptiles, fish, frogs, and small insects, often moulded from nature, and placed on beds of moss, ferns, and leaves, are certainly open to objection on pieces meant to hang on a wall, yet it is difficult to withhold our



Fig. 237.—German Tea-pot.

admiration from an artist whose intimate knowledge of nature is so vividly reproduced in his work.

Far more objectionable are those contemporary ceramic productions, profusely decorated with flowers in high relief, in imitation of the delicate forms and tender colouring of nature utterly improper to the material.

Numbers of Etruscan, Arezzan and German vessels, are decorated with graven or stamped designs, or "slips"

applied to the piece when the clay was still soft, Fig. 237. Those that were found in tombs (Etruria) are all porous.

Admirable busts and statuettes were executed in Italy during the Middle Ages ; whilst German stoves have been marked by good designs for hundreds of years. In Italy terra-cotta entered largely into the decoration of palaces,



Fig. 238.—Architecture : Terra-cotta, Romanesque Period.

churches, and conventicles ; amongst other specimens may be cited the hospital of Pistoja and the admirable medallions of Luca and Andrea della Robbia. Much of the effect of the Certosa of Pavia is lost, on account of the superabundance of its ornamentation. Architectonic terra-cotta has been revived in Germany, and in France ; whilst in England good examples of terra-cotta

are met with in buildings and churches erected within the last thirty years in London and all over the country.

XV.—COLOURED TERRA-COTTA, PAINTED POTTERY, PORCELAIN AND LAVA, ARCHITECTONIC TERRA-COTTA, AND GLAZED TILES.

THE simplest method practised in colouring earthenware consists in painting in vitreous colours on a surface previously enamelled and fired in a muffle kiln. But it sometimes happens that owing to the paste or subjacent enamels being hard, the firing is insufficient to amalgamate the glaze and the body of the piece, so that the colours remain dry and rough on the surface.

Italian “majolica” was executed in this manner; *i.e.* on the red clay was laid an even opaque white coating which served as ground for the pattern, painted with yellow, blue, green, and sometimes a brownish red, encircled in black lines and covered with translucent lead glaze, which imparted to the ware the iridescent lustre by which the mixed majolica is distinguished. Opaque glazing, or white enamel composed of tin, has always been ascribed to Luca della Robbia; and although it is pretty clear that this glaze was known in Italy before his time, and that traces of it have been found in Egypt, Babylonia, and Assyria, dating back thousands of years, it is nevertheless true that he did invent a pearly white enamel different in composition from any employed before, which gave the “mezza majolica” the beautiful and rich effect known as “lustred,” or “metallic ware.”

In early majolica, we find, in some instances, *sgraffitti* or lines sunk in the white "slip," or coating ; buff, green, ruby and gold lusted grounds are also met with. These make the tracing of the design more difficult than the white foundation of earlier times ; whilst lustrous grounds changing at every angle at which the light is reflected from the surface create a rich and brilliant variety.

If the palette of the artist on pottery is somewhat restricted, this is amply compensated in the durability of the vitrified enamels, which should be unhesitatingly painted in the vivid deep blues, and reds, yellows and greens of the ancient ceramists of all countries, rather than in the dull, murky colours used in the products of the present day.

We have seen, earlier in this volume, that coloured glazed bricks and tiles were extensively employed as enrichment to the palaces and temples of Egypt, of Babylonia, and Assyria ; and later to those of Persia, notably during the Sassanid dynasty ; and that painted earthenware for domestic use was also manufactured is equally certain, for numerous examples have been found at Persepolis, Susa, and other cities, Fig. 194.

Architectonic terra-cotta has not been found in Greece, where marble was plentiful and only needed to be quarried and cut into shape or laid out in simple patterns. But coloured and glazed earthenware was made use of in the West during the Middle Ages (from the eleventh to the thirteenth centuries), to adorn church towers, façades, windows and the like. Slabs of porphyry, of serpentine and coloured marbles, were frequently

introduced in the same building along with small pieces of earthenware, in the manner of a subdued albeit charming mosaic, seen in the beautiful façade of Sta. Maria Maggiore at Rome. In England also, some of the artistic skill shown in missal-painting and wood-carving of this period seems to have extended to tiles used for the floors, and still occasionally found in some of our



Fig. 239.—Persian Dish.

country churches. These tiles are characterised by good design and good manipulation, and were invariably made in monasteries where Roman traditions were preserved.

Earthenware seems to have been made at Bristol as far back as Edward the First; be that as it may, potteries were flourishing there, at Leeds, Lowestoft and Yarmouth in the time of Elizabeth, whilst at Lambeth

stone and Delft ware were carried on from 1640 until recent years. Fulham also, some years later, produced a salt-glazed ware, very hard and compact in texture, ornamented with bands, leaves, flowers, or sometimes with medallions. The earliest specimens extant of stone ware are jugs for "sack," or "claret," 1642—1659, 1662. The name of Wedgwood, the greatest of English potters, marks a new era in ceramic products. After many attempts he succeeded in discovering, first the green glaze, seen on dessert plates of that date (1755); then the fine cream-coloured ware known as "Queen's ware," "encaustic painting," in imitation of the ancient Etruscan vases, besides a white terra-cotta proper for bas-reliefs; and lastly the beautiful "jasper ware." This last is a white biscuit of great delicacy, which, like glass, receives and incorporates through the whole substance the enamel colours with which it is painted. The jasper ware is admirably adapted to subjects in relief; the ground being coloured, whilst the figures are of the purest white.

In France, Palissy, the factory of Oiron in the sixteenth century, and later, those of Rouen, Nevers, Moutiers, Strasburg, and other places, produced exquisite specimens of decorated earthenware, Fig. 242. The body of the Oiron pottery is real pipeclay, very fine and white, so that it does not require, like the coarser Italian clay, to be concealed by opaque enamels. The decorations consist of interlacings and arabesques "cut into," not painted, upon the body of the piece; the cavities being filled in with coloured pastes, so as to produce a smooth surface

and fine inlaying, like the damascening of metal work. The inlaid ornaments were produced by peculiar tools and stamps.

Lustred ware, or golden pottery, was manufactured in Arabia, whence the industry was imported into Spain, Sicily, and the Balearic Islands. Its chief characteristics are the brilliant prismatic hues, "which caused it to be much prized by popes, cardinals, and princes of this world, who were astonished that such noble work could be made of clay." Great variety of ornamentation is displayed in the pieces that have been found of this earthenware ; smooth surfaces alternate with patterns in relief, with arabesques, green and black, on a white-pearl, green or golden ground ; or with inscriptions in Arabic characters ; and animal forms, such as the horse, hawk, antelope, etc., are introduced with flowers and leaves arranged in diaper patterns. The colours employed on pottery of Persian origin are bright, but low in tone in Moorish-Hispano ware. The student will find some noble specimens of this earthenware in the South Kensington Museum.

The eternal principle which should regulate the production of all ornament is discarded in the ceramic products of Francesco Xanto (1530—1540) and Orazio Fontana, both of Urbino (1510—1560), who painted many of their pieces after designs by Raphael, Giulio Romano, and others. Judges of high repute hold that monotony, lack of invention, faulty make and general want of care, are the leading features of Xanto. But before the student subscribes to so sweeping a condem-

nation he should examine the brilliant and beautiful dish marked with his name in the South Kensington collection, and such specimens of the Urbino School which from time to time come to the hammer and are to be viewed at Christie's.

The glazed iridescent earthenware known as "majolica" was first practised at Urbino in 1350, Figs. 240 and 241. Other manufactures soon sprang up at Florence, Siena, Faenza, Gubbio, Venice, and Deruta, where admirable majolica was made during the fifteenth and sixteenth centuries. *

Floor tiling should be laid out in simple geometrical patterns after the Persian and Moorish (Alhambra) method; and when animal and floral forms are introduced they should be as conventional as possible in order to obtain the much-needed sense of flatness, essential in a surface destined to be trodden upon, Fig. 244.

Although few ancient lusted tiles have found their way from Persia to Europe, they are sufficient to enable us to judge of their intrinsic beauty and appropriateness for embellishing the domes and walls of mosques and palaces. Some are bronze-coloured, some are iridescent or golden, others are inscribed in Kufic characters or cross and star shaped, and fitted together so as to form a pattern, the stars of one colour and the crosses of another, as may be seen in the South Kensington

* In the present day, the workshops of Florence, after much patient study, have succeeded in reviving and reproducing majolica, similar in artistic character to those of the old schools of Urbino, Gubbio, &c. Nor have they been less successful in their reproductions of the Hispano-Moresque and lusted or golden pottery.

collection. It is self-evident that the form must not be made to extend beyond one tile, nor run over the

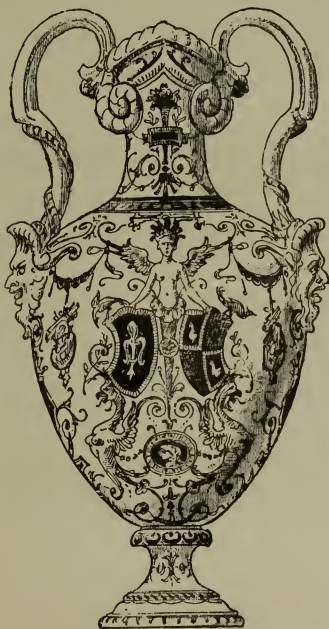


Fig. 240.—Urbino Majolica.

“joints.” These should be carefully drawn and well marked. Lava, it is true, affords slabs of large dimensions, susceptible of receiving varied ornament, but its

surface is so hard that enamel colours cannot sink into nor mingle with it, the result being a hard and disagreeable aspect.

What has been said with regard to ornamental pottery, fired at a low temperature, applies equally to hard porcelain. A slight examination shows that it is more crude



Fig. 241.—Italian Iridescent Majolica.

and coarse in texture, and that its surface lacks smoothness and brilliancy. This inferiority is apparent even in the splendid hard Sèvres of the present day, which, although it allows of greater variety of colours, cannot compare with old "pâte tendre" or "soft" Sèvres—perhaps the most beautiful porcelain ever produced. The degree of

popularity attaching to hard porcelain is accounted for by the comparatively low prices fetched by the article.

It is necessary to go back to a remote period to find when porcelain was first practised in China and Japan. The specimens that were introduced in Europe by traders trafficking with those two countries, Fig. 243, were found so beautiful and were so much admired that experts im-



Fig. 242.—Rouen Pottery.

mediately set to work to try and discover their composition. But although very beautiful ware was produced by Boettger in Germany, at Delft, St. Cloud, Sèvres, Rouen, and other localities, no real porcelain was made until the beginning of the eighteenth century. This restriction is equally applicable to the translucent ware,



Fig. 243.—Chinese Pottery.

made in Venice in the course of the fifteenth century, and in Florence (1575—1580) under the Medicis.

In England, Chelsea, Derby, Bow, and Worcester were started about the middle of the eighteenth century. But as on the Continent, here also efforts to produce real china were not successful until twenty years later. English porcelain was at first purely imitative, borrowing its



Fig. 244.—Floor Tiling.

forms from Oriental specimens and its colouring from those of Dresden and Sèvres. Some pieces, however, wherein native talent asserted itself, can hold their own against the best Sèvres. But the universal degradation into which art fell towards the end of the eighteenth century, and which, with some fluctuations, extended to the middle of the present, is very apparent in China. To forms of a European character were associated Ja-

panese designs ; Greek and Etruscan vases were painted all over with realistic flowers and verdure ; or again with historical subjects, portraits, and landscapes, running impartially on the body and cover of a vase, or the centre of a dish. But the influx of Eastern art products has fortunately induced a change for the better, and introduced a more conventional treatment in decoration.

XVI. — WROUGHT, STAMPED, AND CUT LEATHER,
BINDING LEATHER, CLOTH, WAFLED PAPER, AND
SADDLERY.

WE will now turn our attention to some of the methods used in preparing ornamental leather.

The art of cutting leather by means of a penknife was practised by the Moors of Spain as far back as the eleventh century, and to the present day Cordova leather is justly prized and in great demand. At first the decoration of leather into patterns was executed with the penknife only ; to this succeeded pointed tools or puncheons, by means of which hatched, sunk, and raised ornament could be traced. But this process involved much patient labour, and in the present day the stamping-machine does the work with far greater expedition and at much less expense.

When variety is desired, beads, gold, silver, silk embroidery, and colours are introduced in the pattern, and even a white glazing on metallic backgrounds. But such ornamentation, although very effective, must be judiciously used so as not to destroy the natural aspect of the material. Leather was used in the sixteenth century in

Spain, France, England, and Flanders, to decorate walls and furniture, its low tone harmonising well with oak panelling and wainscoting with which it was associated. Its effect, though a little severe, is satisfactory ; for it

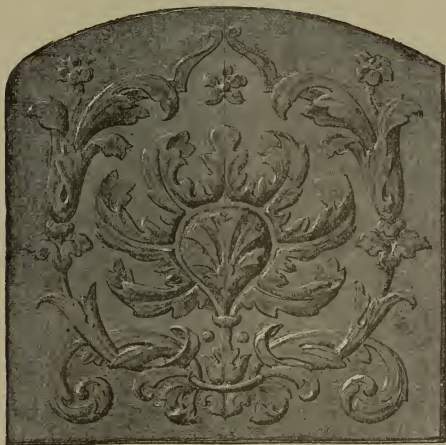


Fig. 245.—Wrought Leather.

imparts to the room so decorated an air of comfort and grandeur that are not without charm, Fig. 245.

Books were at first bound in metal or wood, with or without metal fittings, not unfrequently finely incised or carved ; but leather or parchment bindings are not met with until the fifteenth century. In the sixteenth, Maioli in, Italy, Grolier in France, and later Padeloup, le Gascon

and Beauzonet, produced bindings that are models of that kind of work, Fig. 247. However, artistic bookbinding need not be confined to leather only; canvas and waffled



Fig. 246.—Imitation Leather.

paper may be made to look decorative, if the treatment is such as the nature of the material seems to indicate. A book-cover is not the place for a picture or a print; the proper place for these, if the character of the work requires

it, is inside the book, whilst the outward ornament should prepare the reader for its contents. The title too should be easily read and appropriate, the emblems broadly outlined in low tones. It is needless to say that the objectionable covers seen at railway stations and about yule time should be carefully avoided. Their only object is to catch the eye, and therein, it must be confessed, they abundantly succeed.

Richly decorated saddles, trappings, cases, sheaths, flasks, and packing cases were made with leather, exquisitely ornamented, throughout the Middle Ages, the fittings being generally of fine workmanship. Leather frames, leather inkstands, and the like, so much in vogue a few years ago, have fortunately disappeared.

Thick leather of good quality is very dear and can only be procured by the wealthy. This consideration has no doubt induced imitation leather, or "leather cloth" as it is called, which can be made in paper, ground cork, and the like, by the stamping machine. This machine not only cuts patterns of the required shape but colours them also. If this is an evil it would be hard to say, and we think that if the nature of the material is preserved the objection against its use will not exist. Our illustration, Fig. 246, is a good example of imitation Cordova leather.

A few words upon "stamped fabrics," of universal use in dress and furniture, will not seem inappropriate in this place. They are obtained by simple pressure of the stamp or block upon the velvet tissue, and the "matt" colours produced upon the natural tint of the texture by

the block, are similar in their effect to those obtained by cut and piled velvet. The outline of the pattern in all



Fig. 247.—Italian Bookbinding.

fabrics should be distinct, and the details graduated from the outer edge to the centre, care being exercised to make the pattern exactly fit on the succeeding joints.

XVII.—COLOURED PAPERS, COLOURED CALICOES,
AND PRINTED FABRICS.

THE early method of paper-hangings was by “stenciling,” in which a piece of pasteboard, with patterns cut out in it, was laid on the paper, when water colours were freely applied with the brush to the back of the pasteboard, so that the colours came through the openings and formed the pattern upon the paper. This process was repeated several times, and was only obtained at great expenditure of labour. It was replaced by calico-printing, which is universally applied to the manufacture of wall-paper.

In printing by hand a large number of blocks is required, as each of the various shades and colours is produced by a separate block, which has to be renewed as soon as the colour is exhausted. These blocks consist of engraved pieces, each of which has four pin-points at the corners, as guide-marks for placing the succeeding blocks in the right spot. Within the last thirty years coloured paper has been made by machinery, and mills exist in various parts of the country, London being the chief centre. The process is as follows: A ground colour is first laid evenly over the paper, upon which the coloured design is printed by the machine, it being impressed by a series of blocks or rollers placed round a drum, each roller having its own colour box, sieve, &c.

A layer of distemper, *i.e.* whitelead or whiting, ground in water, is generally laid on the various coatings of

paint; sometimes the surface is glazed, lustred, and sateened, or relieved with gold and wafled by the rotary machine.

The labour and skill bestowed on French decorative papers are stupendous, and the result, alas! is not satisfactory. There is no doubt as to the drawing being good and the colouring sound, but these elaborate compositions with landscapes, gorgeous flowers, scrolls, and every conceivable ornament, even to elaborate figure compositions, are but so much labour lost, inasmuch as it is sought to reproduce in the fragile material of paper, realistic paintings proper to canvas.

A wall-paper should be harmonious in colour and unobtrusive in design, so as to give repose to the eye. A paper presenting violent contrasts in colour and strongly marked lines, affords the worst possible background for pictures and the general arrangement of the apartment. For besides inequalities of surface, according as the light strikes the paper from above or from below, its spotty effect jars with all the other objects in the room, and induces incongruity and bewilderment. Similarly columns, friezes, pilasters, figures, and the like are bad; but foliage and flowers if conventionally treated, are not only permissible but legitimate.

Much care is required in cutting and printing the strips so that they shall exactly fit and join on to the succeeding ones. Another point to be observed is the pattern of the paper, which should not consist of too minute details which are lost at a distance. This principle is well seen in our Fig. 248.

Papers made to imitate marble, wood, terra-cotta, and



Fig. 248.—Wall Paper.

the like, are varnished after being hung. If these papers instead of being “marbled,” were arranged in simple

geometrical patterns, after the manner of our oilcloths, and coloured in rich warm single tints, they would at once become decorative and pleasing. And here we may note that in England since the revival of art, sound ideas about decoration have been acquired ; and paperhangings and fabrics of all kinds, exquisite as regards form and of truly harmonious colours, have been and are now produced.

What has been said about paper naturally applies to coloured calicoes ; with this difference, that the peculiar effect produced by the stamping machine is much enhanced on the pile of woven fabrics. The use of printed materials, both linens, calicoes, and Indian tissues, has become universal ; and whether they are made in India, in England, or in France, they are generally distinguished by good patterns produced by a few simple colours.

XVIII.—TAPESTRY HANGINGS, FURNITURE COVERS, RUGS, AND WORSTED.

TAPESTRY is manufactured on the loom and upon the warp, which consists of wool, thread, cotton, and even silk threads, and the weft is worked with short lengths of as many colours and shades as are required by the workmen to copy the picture before him. The loom is formed of two cylinders, round one of which is rolled the warp, and round the other the web. These "uprights," as they are called, are placed vertically in "high warp," and are parallel to the ground in "low warp."

In high warp velvet pile, the worsted threads compos-

ing the web, which are to form the surface of the carpet, are linked by a double knot on two threads of the warp, forming on the face a ring, the size of which is according to the height of the pile. When this operation has been achieved the shearing of the carpet takes place, requiring much precision and nicety, as upon it depends the beauty of the carpet.

But whatever the skill of the art-worker—and it is sometimes very great—he cannot like the painter judge of the effect of his work, nor alter it as he proceeds; neither are the resources of the latter, such as glaze and impasto, at his command. He has to deal with a dry material, the dyes of which were obtained by different processes from those of the colours and shades of the copying-picture, consequently they do not always correspond with them. With him transparency and harmonious blending of colours can only be produced by minute touches and elaborate hatchings, *i.e.* by several years of patient and intelligent labour. And if this is true of tapestries for which cartoons were expressly made, wherein the resources as well as the limitations of the loom were considered, it is far more so of many historical, allegorical, and biblical subjects, after the drawings of great painters, with figures, animals, hunting scenes, flowers, fruit, and glades of great finish, fine modelling, and an endless variety of colours and shades: not unfrequently displaying a genuine feeling for nature and reproducing it with great felicity, making one regret all the more that talent of a high order and good manipulation should have been so entirely misapplied, Fig. 249.

The most beautiful existing tapestries are those which were made at Arras for Leo •X. from the famous “cartoons” of Raphael. Their number was originally ten,



Fig. 249.—Realistic Tapestry.

seven of which were found by Rubens in the workshop, where they had been forgotten after the execution of the tapestries. The painter advised the king to buy them,

and Charles I. commissioned the manufactory at Mortlake, which had been established by James I., to copy them. These were bought by Cardinal Mazarin at the king's sale after his death, and are now in the "Garde Meuble" at Paris. Those made at Arras for the Sistine Chapel, after many vicissitudes in which they were much damaged, were secured for the Vatican. The cartoons, by a long way the most valuable, belong to the Crown, and have been for some years in the South Kensington Museum.

The use of tapestry is very ancient; the Egyptians produced "painted tapestry" thousands of years before the Christian era; but whether "painted" or "figured" cannot now be ascertained. In Babylon, the palace of the Sassanid kings was adorned with tapestry woven of gold and silver, recalling Greek fables. Homer speaks of hangings and represents Helen working tapestry (embroidery?) when she is visited by Venus during the siege of Troy. We read of Roman emperors giving enormous sums of money for specimens of tapestry. Again, Terence represents ladies executing marvellous productions in the loom amidst their dependants and slaves, beautifully illustrated in one of Rossetti's early pictures.

Tapestry was established in Europe at an early period, when it was also the occupation of high-born ladies, but it is probable that their work was of the kind known as "embroidery," produced by worsted or silk threads on stuffs, rather than tapestries made in the loom.

That tapestry hangings and furniture covers originated with embroidered or worsted work seems pretty certain.

Its best mode of treatment is by simple patterns formed out of geometrical forms, such as the square, the circle, lozenge, and the like. Any attempt at reproducing realistic flowers and modelled figures must necessarily be fruitless and end in total discomfiture. Perhaps the most suitable patterns for this kind of work are to be found in Germany, notably those by Siebenbacher, Fig. 251.

Figure tapestry hangings, like other materials, lose their freshness and harmony by exposure, and, as the change in the flesh-tints and draperies is not uniform, they present after some years a sorry and pitiable appearance. This is not the case with "verdure" pieces, where time instead of detracting seems but to add to their beauty by mellowing and blending the colours, which originally may have been a little too bright.

For some years past better ideas upon the limits imposed upon the weaver by the material employed are apparent in the productions of the Gobelins and Beauvais manufactures, now both under the same direction. They have ceased to copy the storied compositions, either of "old" or contemporary painters, preferring to obtain from trained ornamentists simple compositions created for the loom, thereby saving much labour and expense, whilst securing a more satisfactory result. The effect they wish to produce does not depend on high finish and multiplicity of shades and colours, but rather on a limited number of intrinsic quality skilfully arranged, with which they form decorative designs, based upon the knowledge acquired by careful training and study of the best models, especially those of oriental origin.



Fig. 250.—Oriental Carpet.

Carpets, which are destined to lie under our feet, portions of which will be hidden by furniture, should not consist of clustering flowers tied with "ribbon knots," nor of ornament of great finish thrown up in relief from a plain ground, as is frequently the case in the productions of the Savonnerie and Aubusson workshops, where the forms are so realistic that they seem to rise and impede our progress. The designs should be simple, the ground well covered, albeit without confusion, the colours neither

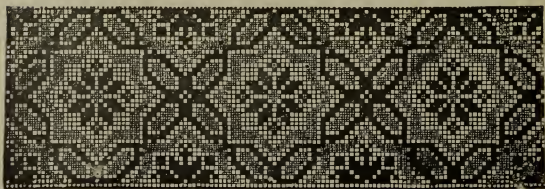


Fig. 251.—German Needlework.

too many nor too glaring, and the pattern seen equally well in any direction. This principle, never absent from Oriental carpets, is well exemplified in our Fig. 250.

A large proportion of Beauvais furniture covers of the eighteenth century, ornamented with fruit and flowers, vividly coloured and of excessive finish, are open to the same objection as the Savonnerie and Aubusson products; in a still greater degree, so are the rustic scenes, the classic landscapes, and architecture of the first half of this century. The sound principle which would make

us discard tinted panel-work papers is equally applicable to tapestry hangings ; where search after perspective and atmospheric effect is equally incongruous. And here we may note that a large proportion of the most remarkable tapestries that have been produced in Europe have their horizon placed low ; hence the rule laid down by Mr. Charles Blanc, that horizons should always be very high, is not binding on the artist. That manufactories existed in England prior to the sixteenth century is made manifest by the frequent allusions met with in old records. Of the remarkable specimens still extant may be cited two large pieces, one representing the marriage of Henry VI., and the other that of Henry VII. The production of English tapestry in the present day consists chiefly of printed carpets of every description intended for domestic use, in which ornamentation of a high order is frequently adapted with admirable taste.

Oriental carpets may be divided into three classes. The Turkish, (including Algerian), Persian and Indian. Turkish carpets are very simple ; composed of a central pattern, and large masses similar to the centre in the four corners, and sometimes at the sides. Red or green are the general ground colours, with blue, yellow, and black interspersed with stars or dots ; nevertheless out of such simple elements they never fail to produce rich and harmonious colouring. In Persian carpets the design, always conventional, covers more space ; but although floral and animal forms are introduced and a more vivid system of colouring is discernible, all the colours blend together in a marvellous way. Sometimes the ground is

red, sometimes deep blue, covered with tulips and pinks in shades of green, pink, yellow and blue. The deep border is formed with a tracery of leaves and various coloured flowers, amongst which are birds of gorgeous plumage. The mysterious "tree of life" forms generally the centre of Persian and Indian carpets, as well as of early Italian fabrics due to Persian influence. Indian carpets are too well known to need description; those made at Masulipatam used to be the finest produced in India and almost anywhere. But European influence and European demand, which insist on cheap articles, have effected changes that are much to be deplored.

XIX.—TEXTILES, CASHMERE SHAWLS, ENGLISH AND FRENCH SHAWLS, EMBROIDERY, AND LACE TRIMMINGS.

TEXTILES present so great a variety of fabrication, that to attempt a description of them all, however slight, is beyond our scope. We will therefore confine ourselves to a few most generally in use, omitting details of execution, as of necessity too brief in this place to be of real service. The word "textile" means every kind of work wrought in the loom; and whether the threads are spun from the produce of the animal, the vegetable, or mineral kingdom, whether of gold, of silver, or any other metal, the webs forming such materials are textiles. Stuffs were at first "plaited," not "woven," as may be inferred from the work of rude tribes at the present day; as well as from the fragments which have been found in the tombs of primitive peoples. "Flax linens" were known

to the nations of antiquity. In Egypt mummies wrapped in (fine) linen, dating back thousands of years, have been discovered; whilst plain and figured (striped) cotton and silk textures are of ancient date in countries where the mulberry and cotton plant are indigenous. The first sure indication we have of silk in Europe is to be found in Aristotle. From China and India the manufacture of silk rapidly spread to the West; and in the time of Augustus, silk robes were worn in Rome of so transparent a texture that they "shrouded," but did not "conceal" the figure, and brought down upon the fair wearers the wrathful strictures of purists. The gossamer-like tissue was due, not so much to a feeling of immodesty, as to the excessive prices that were asked for silk, sold then by weight, as is still the case in the present day both in the East and many parts of Italy.

The enormous cost of silk led the way to "mixed" textures, in which the warp was of cotton, hemp, or wool, woven with the more precious web. Besides these various materials, gold and silver cut into narrow "strips" came to be used in weaving, so as to add lustre and richness to the fabric. Sometimes the cloth was entirely of gold, but its fabulous price induced the weaver to work with the silk strips of paper made to look like gold, weaving the cloth so closely that the real nature of the material could not be detected even with a magnifying glass.

England, from very early times, had textiles made in primitive looms, varying in design and material. The finer and more tasteful webs were wrought by women, who increased their beauty with stitches done with the

needle. The woollen stuffs made at Bath, Worcester, and Norwich, were in high demand both in this country and on the continent. The weavers of Worsted, in Norfolk, produced a texture of such good quality, that it became known as "worsted," from the place of its manufacture ;



Fig. 252.—Textile suitable for Furniture.

and the word has passed in the language to describe a distinct kind of work.

The best woollen cloths during the Middle Ages were made in Flanders with English wool ; which was esteemed then, as it is now, for its superior quality and the excellence of its dyes.

Goods worked in the loom may be divided into "plain" and "figured," both "flat" and "brocaded," also called "damask" because the forms look as if they had been engraved as on metal. Textiles, whether plain or inwrought with designs, are now produced by machinery. The "power-loom," invented by Dr. Cartwright exactly a hundred years ago, is used for plain weaving, and it is hardly necessary to add, is far more expeditious than the old loom; but when figures, flowers and other devices are desired, the "Jacquard apparatus" is fitted on to the power-loom and produces all kinds of fabrics, including carpets and lace curtains.

But wonderful though these appliances may be, and improvements are made every day, they cannot as yet produce the highest class of textiles, such as brocades, fine velvets and the like; for these the old looms worked with the feet acting on the treadles must be resorted to. Nor can our fabrics compare with Indian products either in design, richness of colouring, or manipulation. The most gorgeous Cashmere shawls are made by the natives in looms so small and primitive, that they have to be woven in separate segments. The centre piece is first set out, and the other pieces are ranged round it, so as to form the pattern, which may be extended according to the fancy of the worker. The "fine joining" is gone over with embroidery in various subdued and dark shades producing the design; which has more the effect of an elaborate and fine nielling, than work made in the loom and with the needle.

Nor is this all; the slight unevenness of Indian tissues

produces a play of light and shadow, which at a short distance lends the appearance of low relief to the fabric. In justice to European as against Indian ornament, it should be stated, that if it cannot approach the latter in brilliancy of colouring and exquisite beauty of detail, its designs, notably of late years, are never confused, and show much skill in their arrangement deserving of the highest praise.

But the same forms or designs should not be impartially applied to silk, cotton, or woollen textures, nor should they be on too large a scale and such as will suffer by draping; whilst the scale in stuffs meant for furniture should be increased and marked by boldness of design, Fig. 252.

Numerous allusions are made in old inventories of "plain" silks and velvets; of velvets "raised" with cord, with spangles or embroidered ("passing") with gold and coloured silk threads, which lent the tissue the appearance of having been wrought not by the needle but in the loom. The beauty of these silken textiles was frequently increased by human and animal forms, the flesh tints being worked in pink silk of various shades. Precious stuffs which required years of skilful labour in their manufacture could only be procured by kings and prelates, who wore them on state occasions or church ceremonies in the early part of our era and throughout the Middle Ages. But from the seventeenth century the figures on sacerdotal vestments, such as dalmatics, orphraies, banners, and the like, were frequently "painted" on the stuff instead of being "worked" with the needle. In the

Catholic church these figures were often, and still are, cut out of tinted cardboard and inserted in the vestment. To expatiate on the absurdity and the bad taste of similar ornamentation would be sheer loss of time.

The diversity of stitches seen in embroidered work is very great, besides "passing," already mentioned, cross, chain, rose, Russian, whalebone, Maltese, knotted, lace



Fig. 253.—Embroidery.

stitch and many more are employed to add variety to the design, Fig. 253.

Cut-work is made in different ways and may be applied to a piece of cloth, silk, velvet or linen. When the application is made on a light fabric, such as muslin, the outline is sometimes traced with whipping-cord, sewn on to the stuff; the inner details being worked in with

button-hole, chain, satin stitch, and the like, Fig. 254. Embroidery is always worked with the aid of a needle, cant-hook, or "stiletto."

The designer should take into account not only the general disposition of the forms, but also the degree of transparency and opacity he wishes to produce. The juxtaposition of plain and figured bands is to be recommended for blinds and window curtains; the effect of which is reversed as they are viewed from the outer or inner side.



Fig. 254.—*Cut-work, or Appliqué.*

This pleasing combination is seen in old bed hangings and window curtains of the fifteenth century, which generally consist of stripes of velvet or coloured satin, alternately with cut-work in crewels. Network upon linen was done on a square ground, and the patterns produced with the needle, or formed of pieces of linen "cut out" and "sewn on," or applied to the net. This kind of work was often executed in coloured threads, red, blue and black; or darned with gold and silver, after the manner

of Eastern, Russian, and German work of the present day, Fig. 257.

Lace is made of silk, cotton, flax, gold, silver and even the fibre of aloes. It consists of the ground or network and the design or flowers, which are connected by double threads overcast with button-hole stitch, and fringed with loops and knots. The pattern is made separately or with the ground. It is made in one piece in Mechlin, Valenciennes, and Buckingham lace, whilst it is worked into or sewn on to the ground in Brussels and Honiton. In

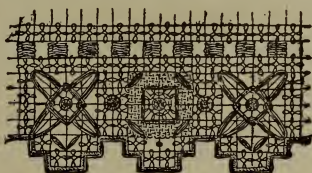


Fig. 255.—Darned Lace.

some kinds of lace a little raised cord surrounds the pattern. The open work or fancy stitches are called “fillings.”

The most precious lace is entirely worked with the needle and is called “point ;” whilst “pillow” is executed by weaving, twisting, and plaiting of the threads upon a pillow or cushion. The best known point laces are those of Italy, especially Venice ; Spanish laces and the comparatively modern “point d’Alençon.” Needle-lace came into general use in the sixteenth century, when the points and cut-works of Italy and Flanders were

worn by ladies and gentlemen as ruffs, cuffs, collars, handkerchiefs, etc. All the lace of this period consists



Fig. 256.—Honiton Lace.

of geometric designs in squares variously combined, Fig. 255.

It is not until the seventeenth century that these forms are replaced by patterns characteristic of the period, such as scrolls and flowing lines. To the Netherlands belongs

the invention of pillow lace, which was and still is one of the chief industries of the country.

Brussels lace is of two kinds : needle-point and pillow. Needle-point is made in small pieces and united by invisible stitches, called "fine joining." It is stronger than the pillow, but much more expensive, and only made for princes and "millionaires."

Brussels lace is known in France as "English point,"



Fig. 257.—Cut-work.

respecting which a word of explanation may be given. At the Restoration of the Stuarts, the use of lace became so universal, and the sums of money that were sent out of the country so enormous, that its importation was prohibited by an Act of Parliament. But means were found to smuggle Brussels lace over to England, where it was sold as "English point."

Mechlin lace, which is made on the pillow, has always been in great demand in England, owing to its lightness and pleasing effect.

The great centres of lace-making in this country are Buckinghamshire, the adjoining counties, and Devon-

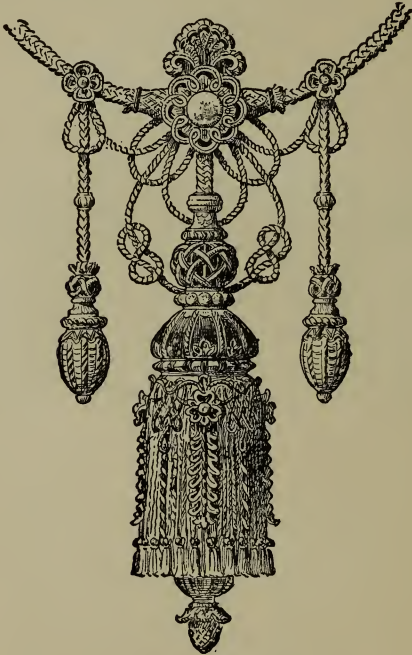


Fig. 258.—Braidery.

shire. The first-named are distinguished for the clearness and beauty of their grounds, but imitation lace has

caused the demand for real lace to decline, and the lace-makers, with few exceptions, now only produce Cluny and Maltese. Honiton lace resembles Brussels in make. Great care is bestowed both on the ground and upon its "sprigs," which are worked separately and afterwards sewn on to the ground, Fig. 256.

Art lace is now made in Nottingham by "pusher-machines" which form the net with the pattern, afterwards completed by hand with the "gimp" or thicker thread. By this combined process, shawls, scarfs, flounces, curtains, and lace of great beauty are produced.

The art of lace-making was introduced in Ireland in the middle of the last century, where it has been carried on in various localities with great success ever since. "Irish point," "appliqué," Limerick lace, Irish "tatting," "crochet," etc., may be seen in many windows of the metropolis, as well as knitting both plain and ornamental.

"Trimmings" of gold and silver lace, once so important a branch of industry, are now almost exclusively confined to military and naval uniforms, whilst the endless variety of silk, woollen and cotton lace, of fringe, tassels, and the like, are scarcely seen except on furniture, Fig. 258.

XX.—DECORATIVE PAINTING, MONOCHROMES, CURTAINS, BLINDS, AND ILLUMINATED AND ORNAMENTAL WRITING.

WE have purposely kept decorative painting and its derivatives to the last, because circumstantially to treat of

the materials used in their elaboration on the one hand, or those to which they are generally applied, would be out of place in an elementary work of this kind.

• It is well known that plaster, wood, metal, textiles, stone, and brick, *i.e.* walls and ceilings, may be covered with painting, and that oils, tempera, fresco, etc., are the means adopted for the purpose. But the principles which govern the production of all ornament, without which no success worthy of the name is to be expected, these are cardinal points too often lost sight of by the artist. The material, destination, and nature of the object to be decorated, should hold the first rank in his estimation. A little reflection will show that the same method cannot with propriety be applied to wood, canvas, metal, paper, or walls; that the architectonic features of a building must be very apparent, since to conceal or disguise them with ornament is to fail in the purpose for which ornament was created; and finally that when colours are introduced they should be so graduated as to blend and form an artistic whole.

In order to achieve this a thoughtful study of the natural growth of plants, the graceful twining of twigs and branches of trees, the interlacing of grasses, the wealth and harmony of their colouring, will suggest ever fresh beauties, and be of the utmost value to the artist. Then, too, he must remember that a work intended for the open air is essentially decorative, so that its general effect should be thought of even before its higher significance. Nor is this all: his training should have prepared him to understand the resources as well as the limitations of his



Fig. 259.—Renaissance Ceilin.

art. This he will best learn by constant reference to the beautiful works of men, who were thorough masters of their art, and whose compositions are distinguished by sobriety of colour (sometimes only monochromes) in the larger masses, while the small masses are heightened with primary and secondary tints, according as they formed the equivalent of the dominant colour.

In Egypt we find examples of decorative colouring nearly three thousand years old, and as fresh and vivid as if painted yesterday. The excavations at Pompeii, have revealed the fact that the Greeks of that period, if not earlier, used colours to decorate their houses and public buildings, "the walls of which are still glowing with marvellous combinations of colours and the utmost elegance, fancy, and beauty of design," portraying conditions of life that have for ever passed away. In them excessive modelling, straining after perspective and atmospheric effects—incongruous on the walls of an apartment—are nowhere visible, and the result is in every way satisfactory. The restrictions imposed by Byzantine artists, at the beginning of our era, upon art-production, which continued to be felt throughout the Middle Ages, banished the grace, the freedom, the comprehensiveness and audacity, which had characterised Grecian art; on the other hand this was compensated in part by a quaint simplicity and earnestness of purpose, a strength of sombre colouring that are not without a charm of their own.

This Byzantine influence is still apparent in the productions of the Renaissance, in the early works of Raphael, and even in his famous "frescoes" adorning the corridors

and chambers of the Vatican. Of the impropriety of placing figures in such a position we have spoken elsewhere. Raphael was a king among painters, but he was not an ornamentist. The same reservation applies to his contemporaries and successors, both of the Roman, Um-

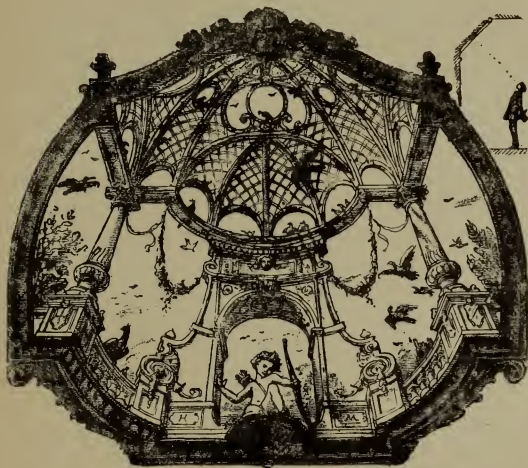


Fig. 260.—French Ceiling.

brian, Florentine, and Venetian schools, including Tiepolo, whose architectural compositions on domes and vaulted ceilings sin against common sense, Fig. 259. It is owing to the same misguided judgment that many beautiful compositions due to Flemish and French art lose so much of

their interest, Fig. 260, whilst the architectural decorations seen in the vertical panelling of the Græco-Roman period, if less absurd, testify nevertheless to the degradation which had descended on the art of the Lower Empire, Fig. 262.

Of the exquisite beauty of illuminated Eastern MSS., and in almost an equal degree those relating to mediæval times, we spoke in another place. There still remains to notice ornamental writing and inscriptions closely allied to them and the forerunners of illuminated designs, met



Fig. 261.

Mark.

with, more or less, in every period of art, sometimes as a decorative element, but not unfrequently as simple statement of facts. In this class must be placed the "merchants' marks," introduced into mediæval work by those who, not being of noble birth, were forbidden to bear

arms. But under the hands of artists, simple letters became beautiful as well as decorative. *Vide* Fig. 261, a fac-simile of Albert Dürer's initials affixed to his work.

Figs. 263 and 264 are monograms sketched from charters in the British Museum; one drawn up in the reign of Edgar, A.D. 961, the other in the reign of Canute, A.D. 1031.

A cipher differs from a monogram in that the letters are repeated and reversed, so as to form a bi-symmetrical or multi-symmetrical composition. Fig. 265 is an illustration of this.

The three intersecting C's in Fig. 266 form a good example of a multi-symmetrical cipher: it is taken from a

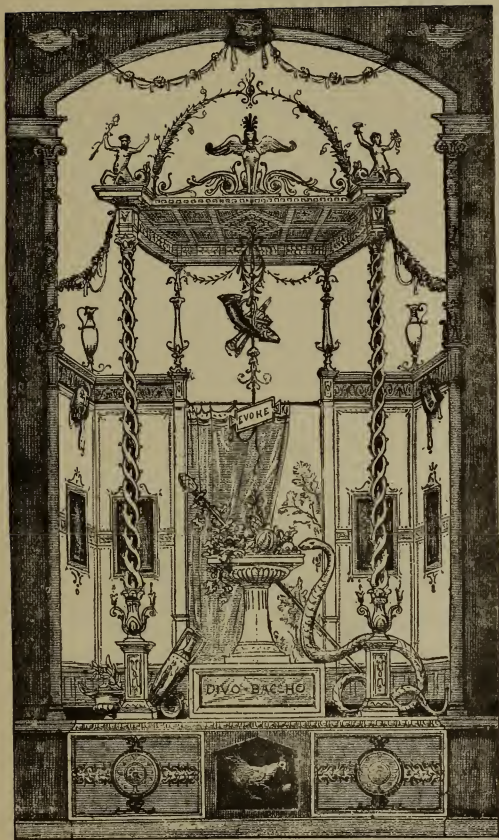


Fig. 262.—Græco-Roman Panelling.

biberon of Oiron *faïence*, or, as it is often termed, Henri Deux ware. A certain amount of doubt exists as to the meaning of the form, but it is generally concluded that



Figs. 263, 264.—Monograms.

it is the initial letter of the queen, Catherine de Medici ; an undercurrent of meaning connecting the crescent form



Fig. 265.—Cipher.

with the Duchesse de Valentinois, better known as Diana of Poitiers. Fifty-five specimens only of the ware are known to exist, and almost all have this cipher upon

them ; of these, twenty-five pieces are in English collections, twenty-nine in France, and the remaining one in Russia.

That at first all writings were in capital letters is placed beyond doubt by the archaic inscriptions found all over the world, including our own country, both on terra-cotta, coins, and buildings. Similar writing was soon found too laborious and cumbrous for the ordinary purposes of daily life, and induced a current writing or "running hand." The resemblance of our letters to the capital characters of which they are a modification can still be traced, but nowhere is this so apparent as in mediæval or Gothic writing, the most picturesque of all for ornamental schemes, as will be seen in Fig. 266, 7 where arabesques and interlacings are deftly interwoven with the letters.



Fig. 266.—Cypher.

If our capital characters cannot boast the graceful undulating forms of Arabic, nor yet of the picturesqueness of Gothic letters, they have the merit of being easily read, and, owing to the straightness and clearness of their lines, are very suitable for cutting hard stone, marble and even granite.

Inscriptions enter largely into Egyptian, Assyrian, Persian, Arabic, Greek, and Roman ornament in their buildings, pottery, sarcophagi, MSS., and textile fabrics. Indeed, it would be more correct to say that they have been adopted by all nations of the civilised world, nor is it necessary to travel beyond our own country to have the statement abundantly proved.

In conclusion we would remind the student that if he lays to heart, and inwardly digests, the vital principles advocated in this volume, success, real and lasting, will crown his honest endeavours.



Fig. 267.

Arabesques and Interlacings interwoven with Letters.



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